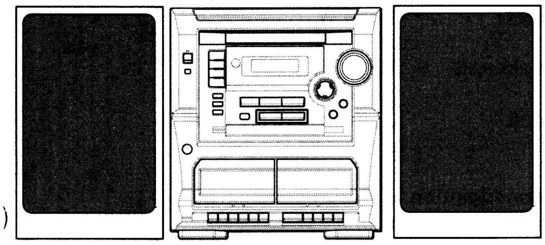
aiwa

aiwa
SERVICE

Z-L100
Z-L200



COMPACT DISC STEREO
CASSETTE RECEIVER

- BASIC TAPE MECHANISM : ZZM-2 PR1NM
- BASIC CD MECHANISM : AZG-1 ZD8RN1DM
- TYPE :100U, 200LH

REVISION PUBLISHING

SYSTEM	CD CASSEIVER	SPEAKER	STEREO TURNTABLE	REMOTE CONTROLLER
Z-L100	CX-ZL100	SX-ZL100	PX-E860	RC-ZAS02
Z-L200	CX-ZL200	SX-ZL200	–	

- If requiring information about the CD mechanism, see Service Manual of AZG-1 ZD8RN1DM, (S/M Code No. 09-001-335-3N6).
- If requiring information about the Stereo Turntable, see Service Manual of PX-E860 (U), (S/M Code No. 09-993-322-0R1).

SERVICE MANUAL

S/M Code No. 09–99C–422–5R1

SPECIFICATIONS

<FM tuner section>

Tuning range	87.5 MHz to 108 MHz
Usable sensitivity (IHF)	13.2 dBf
Antenna terminals	75 ohms (unbalanced)

<AM tuner section>

Tuning range	530 kHz to 1710 kHz (10 kHz step) 531 kHz to 1602 kHz (9 kHz step)
Usable sensitivity	350 µV/m
Antenna	Loop antenna

<Amplifier section>

Power output	U : 30 W + 30 W (50 Hz - 20 kHz, T.H.D. less than 1%, 6 ohms) LH : Rated 33 W + 33 W (1 kHz, T.H.D.1%, 6 ohms) Reference : 40 W + 40 W (6 ohms, T.H.D.10%, 1 kHz)
Total harmonic distortion	U : 0.1% (6 W, 1 Hz, 6 ohms, DIN AUDIO) LH : 0.1% (17 W, 1 kHz, 6 ohms, DIN AUDIO)
Inputs	VIDEO/AUX/PHONO IN: 500 mV
Outputs	CD DIGITAL OUT (OPTICAL) SPEAKERS : accept speakers of 6 ohms or more PHONES (stereo jack) : accepts headphones of 32 ohms or more

<Cassette deck section>

Track format	4 tracks, 2 channels stereo
Frequency response	50 Hz – 10000 Hz
Recording system	AC bias
Heads	Deck 1 : Recording/Playback head x 1, erase head x 1 Deck 2 : Playback head x 1

<Compact disc player section>

Laser	Semiconductor laser (λ =780 nm)
D-A converter	1 bit dual
Signal-to-noise ratio	85 dB (1 kHz, 0 dB)
Harmonic distortion	0.05 % (1 kHz, 0 dB)
Wow and flutter	Unmeasurable

<Speaker system SX–ZL100 (U), SX–ZL200 (LH)>

Cabinet type	3 way, bass reflex
Speakers	Woofer : 130 mm (5$^{1}/_{8}$ in.) cone type Tweeter : 60 mm (2$^{3}/_{8}$ in.) cone type Super tweeter: 20 mm ($^{13}/_{16}$ in.) ceramic type
Impedance	6 ohms
Output sound pressure level	87 dB/W/m
Dimensions (W x H x D)	260 x 496 x 220 mm (10$^{1}/_{4}$ X 19$^{5}/_{8}$ X 8$^{3}/_{4}$ in.)
Weight	3.7 kg (8 lbs 3 oz.)

<General>

Power requirements	U : 120 V AC, 60 Hz LH : 120 V/220-230 V/240 V AC (switchable), 50/60 Hz
Power consumption	U : 56 W LH : 70 W
Dimensions of main unit (W x H x D)	360 x 393 x 342 mm (14$^{1}/_{4}$ X 15$^{1}/_{2}$ X 13$^{1}/_{2}$ in.)
Weight of main unit	U : 7.2 kg (15 lbs 14 oz.) LH : 7.7 kg (17 lbs)

Standby power consumption <LH>

If the power-economizing mode is OFF : 17 W

If the power-economizing mode is AUTO or ON : 0.9 W

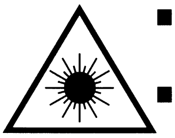
- Design and specifications are subject to change without notice.

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.



- ■ Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- ■ Advarsel: Usynlig laserståling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

VAROITUS!

Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saataa altistaa käyt-täjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

VARNING!

Om apparaten används på annat sätt än vad som specificeras i denna bruksanvising, kan användaren utsättas för osynling laserstrålning, som överskrider gränsen för laserklass 1.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herin may result in hazardous radiation exposure.

ATTENTION

L'utillisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

ADVARSEL

Usynlig laserståling ved åbning, når sikkerhedsafbrydereer ude af funktion. Undgå udsættelse for stråling.

This Compact Disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the rear exterior.

CLASS 1	LASER PRODUCT
KLASSE 1	LASER PRODUKT
LUOKAN 1	LASER LAITE
KLASS 1	LASER APPARAT

NOTE ON BEFORE STARTING REPAIR

1. Forced discharge of electrolytic capacitor of power supply block

When repair is going to be attempted in the set that uses relay circuit in the power supply block, electric potential is kept charged across the electrolytic capacitors (C101, 102) even though AC power cord is removed. If repair is attempted in this condition, secondary defect can occur.
In order to prevent the secondary trouble, perform the following measures before starting repair work.

Discharge procedure

① Remove the AC power cord.
② Connect a discharging resistor at an end of lead wire that has clips at both ends. Connect the other end of the lead wire to metal chassis.
③ Contact the other end of the discharging resistor to the positive (+) side (+VH) of C101. (For two seconds)
④ Contact the same end of the discharging resistor as step ③ to the negative (-) side (-VH) of C102 in the same way. (For two seconds)
⑤ Check that voltage across C101 and C102 has decreased to 1 V or less using a multimeter or an oscilloscope.

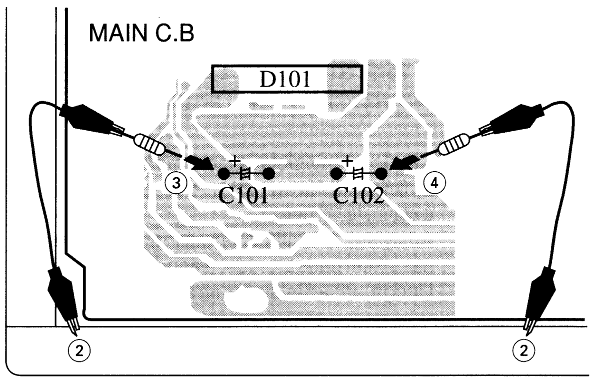


Fig-1

Select a discharging resistor referring to the following table.

Charging voltage (V) (C101, 102)	Discharging resistor ( )	Rated power (W)	Parts number
25-48	100	3	87-A00-247-090
49-140	220	5	87-A00-232-090

Note: The reference numbers (C101, C102) of the electrolytic capacitors can change depending on the models. Be sure to check the reference numbers of the charging capacitor on schematic diagram before starting the discharging work.

2. Check items before exchanging the MICROCOMPUTER

Be sure to check the following items before exchanging the MICROCOMPUTER. Exchange the MICROCOMPUTER after confirming that the MICROCOMPUTER is surely defective.

2-1. Regarding the HOLD terminal of the MICROCOMPUTER

When the HOLD terminal (INPUT) of the MICROCOMPUTER is "H", the MICROCOMPUTER is judged to be operating correctly. When this terminal is "L", the main power cannot be turned on. Therefore, be sure to check the terminal voltage of the HOLD terminal before exchange.
When the MICROCOMPUTER is not defective, the HOLD terminal can also go "L" when the POWER AMPLIFIER has any abnormalities that triggers the abnormality detection circuit on the MAIN C. B. that sets the HOLD terminal to "L".

- Good or no good judgment of the MICROCOMPUTER

① Turn on the AC main power.
② Confirm that the main power is turned on and the HOLD terminal of the MICROCOMPUTER keeps the "H" level or not.
③ When the HOLD terminal is "L" level, the abnormality detection circuit is judged to be working correctly and the MICROCOMPUTER is judged to be good.

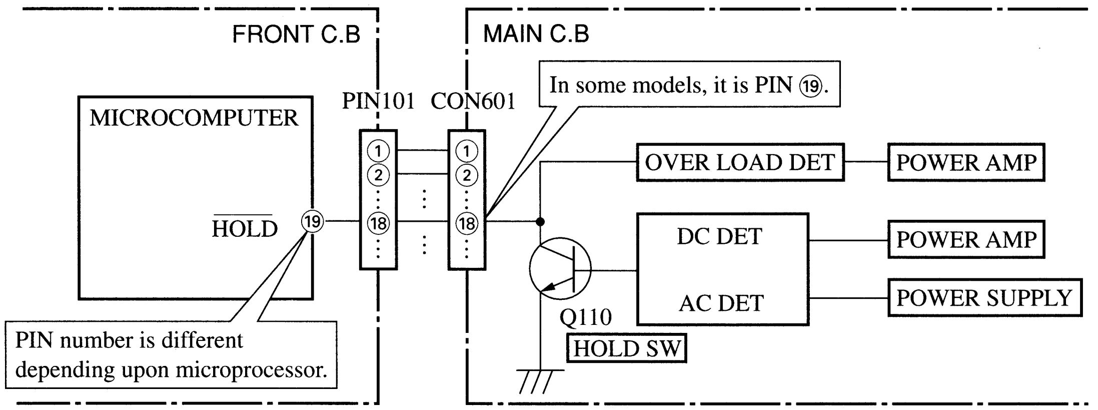


Fig-2-1

In such a case, check also if the POWER AMPLIFIER circuit or power supply circuit has any abnormalities or not.

2-2. Regarding reset

There are cases that the machine does not work correctly because the MICROCOMPUTER is not reset even though the AC power cord is re-inserted, or the software reset (pressing the STOP key + POWER key) is performed.
When the above described phenomenon occurs, it can lead to wrong judgment as if the MICROCOMPUTER is defective and to exchange the MICROCOMPUTER. In such a case, perform the forced-reset by the following procedure and check good or no good of the MICROCOMPUTER.

① Remove the AC power cord.

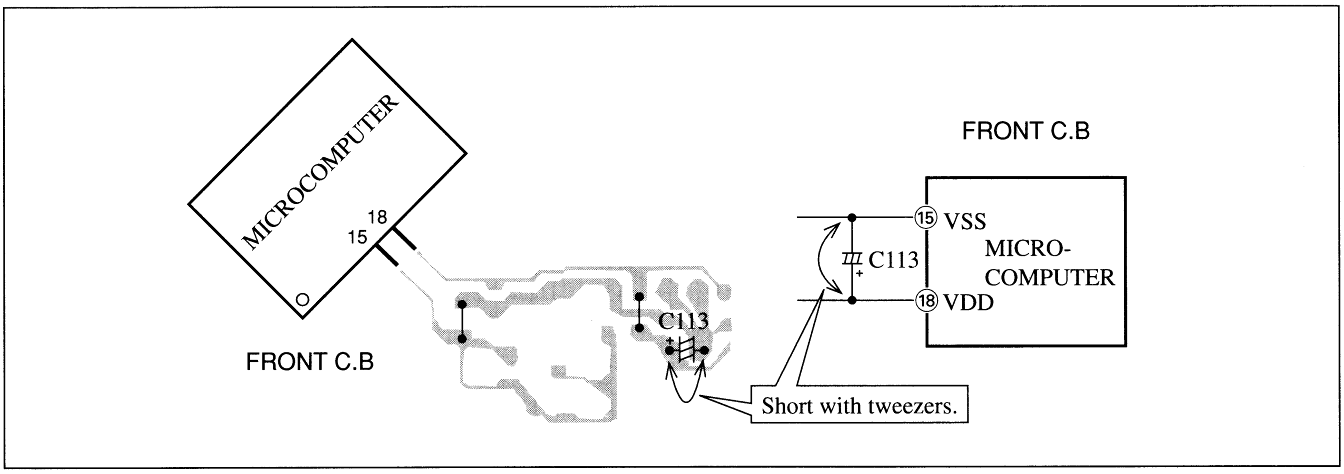


Fig-2-2

② Short both ends of the electrolytic capacitor C113 that is connected to VDD of the MICROCOMPUTER with tweezers.

③ Connect the AC power cord again. If the MICROCOMPUTER returns to the normal operation, the MICROCOMPUTER is good.

Note: The reference number or MICROCOMPUTER pin number of transistor (Q110) and electrolytic capacitor (C113) can change depending on the models. Be sure to check the reference numbers on schematic diagram before starting the discharging work.

2-3. Confirmation of soldering state of MICROCOMPUTER

Check the soldering state of the MICROCOMPUTER in addition to the above described procedures. Be sure to exchange the MICROCOMPUTER after surely confirming that the trouble is not caused by poor soldering but the MICROCOMPUTER itself.

ELECTRICAL MAIN PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

IC

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
	8A-MA6-651-010		C-IC,M38B59MFH-E250FP
	87-A21-396-010		IC,STK490-040<U>
	87-A21-397-010		IC,STK490-070<LH>
	87-A21-218-010		IC,NJL64H380A
	87-A21-419-040		C-IC,NJM14558MD-TE2
	87-A21-443-040		C-IC,M62495AFP
	87-A21-415-010		IC,LA1843
	87-070-127-110		IC,LC72131 D

TRANSISTOR

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
	87-026-609-080		TR,KTA1266GR
	89-213-702-010		TR,2SB1370E
	87-026-610-080		TR,KTC3198GR
	87-A30-076-080		C-TR,2SC3052F
	87-A30-075-080		C-TR,2SA1235F
	87-026-245-080		TR,DTC114ES
	87-A30-198-080		TR,KTC3199GR<LH>
	87-A30-090-080		FET,2SK2541
	87-A30-107-070		C-TR,CMBT5401
	87-A30-106-040		C-TR,CMBT5551
	87-026-235-080		CHIP-TR,DTC114EK<U>
	87-A30-091-080		FET,2SJ460
	87-A30-104-080		C-TR,RT1N 441C
	89-333-317-880		TR,2SC3331 (T/U)
	87-A30-234-080		TR,CSC4115BC
	89-327-143-080		TR,2SC2714O
	87-A30-072-080		C-TR,RT1P 144C

DIODE

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
	87-A40-393-090		DIODE,1N5402GW(F20)
	87-A40-736-080		DIODE,1N4148M(SEM)
	87-A40-455-080		DIODE,RL203 GW
	87-A40-553-080		DIODE,IN4003 LES
	87-A40-776-080		ZENER,UZ27BSD
	87-A40-764-080		ZENER,UZ10BSC
	87-A40-313-080		C-DIODE,MC 2840
	87-A40-270-080		C-DIODE,MC2838
	87-A40-269-080		C-DIODE,MC2836
	87-A40-291-080		DIODE,1N4148M CPT)
	87-017-154-080		ZENER,HZS6C3L
	87-A40-739-080		ZENER,UZ2.7BSA
	87-017-149-080		ZENER,HZS6A2L

MAIN C.B

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C3	87-012-368-080		CHIP CAPACITOR,0.1-50 ZF
C4	87-012-368-080		CHIP CAPACITOR,0.1-50 ZF
C5	87-012-368-080		CHIP CAPACITOR,0.1-50 ZF
C6	87-012-368-080		CHIP CAPACITOR,0.1-50 ZF
C9	87-012-368-080		CHIP CAPACITOR,0.1-50 ZF
C10	87-012-368-080		CHIP CAPACITOR,0.1-50 ZF
C11	87-012-368-080		CHIP CAPACITOR,0.1-50 ZF
C12	87-012-368-080		CHIP CAPACITOR,0.1-50 ZF
C19	87-010-917-000		CAP,E 3300-50 M SMG
C20	87-010-917-000		CAP,E 3300-50 M SMG
C21	87-010-389-090		CAP,E 2200-25 M SMG
C22	87-010-389-090		CAP,E 2200-25 SMG
C25	87-010-385-080		CAP, ELECT 220-25V M 11L SME
C26	87-010-247-080		CAP, ELECT 100-50V M 11L SME
C30	87-010-430-080		CAP, ELECT 100-63
C31	87-010-263-080		CAP, ELECT 100-10V M 11L SME
C32	87-010-197-080		CAP, CHIP 0.01-25 KB
C33	87-010-263-080		CAP, ELECT 100-10V<U>
C34	87-010-247-080		CAP, ELECT 100-50V M 11L SME
C35	87-010-382-080		CAP, ELECT 22-25 M 11L SME
C60	87-010-403-080		CAP, ELECT 3.3-50V M 11L SME
C61	87-010-260-080		CAP, ELECT 47-25V M 11L SME
C101	87-010-182-080		C-CAP,S 2200P-50 KB
C102	87-010-182-080		C-CAP,S 2200P-50 KB
C103	87-010-544-080		CAP, ELECT 0.1-50V M 11L SME
C104	87-010-544-080		CAP, ELECT 0.1-50V M 11L SME
C105	87-010-178-080		CHIP CAP 1000P-50 KB
C106	87-010-178-080		CHIP CAP 1000P-50 KB
C107	87-010-404-080		CAP, ELECT 4.7-50V M 11L SME
C108	87-010-404-080		CAP, ELECT 4.7-50V M 11L SME
C111	87-010-391-080		CAP,E 10-35 M 11L SME
C112	87-010-391-080		CAP,E 10-35 M 11L SME
C113	87-010-405-080		CAP, ELECT 10-50V M 11L SME
C114	87-010-405-080		CAP, ELECT 10-50V M 11L SME
C119	87-010-197-080		CAP, CHIP 0.01-25 KB
C120	87-010-197-080		CAP, CHIP 0.01-25 KB
C125	87-012-368-080		C-CAP,S 0.1-50 ZF
C126	87-012-368-080		C-CAP,S 0.1-50 ZF
C127	87-012-368-080		C-CAP,S 0.1-50 ZF
C128	87-012-368-080		C-CAP,S 0.1-50 ZF
C129	87-010-191-080		C-CAP,S 0.015-50 ZF GRM
C130	87-010-191-080		C-CAP,S 0.015-50 ZF GRM
C131	87-010-197-080		CAP, CHIP 0.01-25 KB
C132	87-010-197-080		CAP, CHIP 0.01-25 KB
C133	87-010-186-080		CAP,CHIP 4700P-50 KB
C301	87-010-180-080		CHIP CAP 1500P-50 KB
C302	87-010-180-080		CHIP CAP 1500P-50 KB
C303	87-010-180-080		CHIP CAP 1500P-50 KB
C304	87-010-180-080		CHIP CAP 1500P-50 KB
C305	87-010-198-080		CAP, CHIP 0.022-25 KB
C307	87-010-263-080		CAP, ELECT 100-10V M 11L SME
C308	87-010-263-080		CAP, ELECT 100-10V M 11L SME
C309	87-010-318-080		C-CAP,S 47P-50 CH GRM
C310	87-010-318-080		C-CAP,S 47P-50 CH GRM
C311	87-010-598-080		C-CAP,S 0.068-16VRK
C312	87-010-598-080		C-CAP,S 0.068-16VRK
C313	87-010-187-080		CAP CHIP S5600P-50 KB
C314	87-010-187-080		CAP CHIP S5600P-50 KB
C315	87-010-263-080		CAP, ELECT 100-10V
C317	87-010-400-080		CAP, ELECT 0.47-50V M 11L SME
C318	87-010-400-080		CAP, ELECT 0.47-50V M 11L SME
C326	87-010-198-080		CAP, CHIP 0.022-25 KB
C327	87-010-196-080		CHIP CAPACITOR,0.1-25
C360	87-010-401-080		CAP, ELECT 1-50V M 11L SME
C399	87-012-140-080		CAP 470P-50 J CH
C401	87-010-544-080		CAP, ELECT 0.1-50V M 11L SME
C402	87-010-544-080		CAP, ELECT 0.1-50V M 11L SME
C403	87-012-145-080		CAP, CHIP S 270P-50 CH
C404	87-012-145-080		CAP, CHIP S 270P-50 CH
C405	87-010-197-080		CAP, CHIP 0.01-25 DM
C406	87-010-197-080		CAP, CHIP 0.01-25 DM
C407	87-010-197-080		CAP, CHIP 0.01-25 DM
C408	87-010-197-080		CAP, CHIP 0.01-25 DM
C409	87-010-182-080		C-CAP,S 2200P-50 B
C410	87-010-182-080		C-CAP,S 2200P-50 B
C411	87-010-405-080		CAP, ELECT 10-50V M 11L SME
C412	87-010-405-080		CAP, ELECT 10-50V M 11L SME
C452	87-010-382-080		CAP, ELECT 22-25V M 11L SME
C453	87-010-183-080		C-CAP,S 2700P-50 B
C454	87-010-183-080		C-CAP,S 2700P-50 B
C455	87-010-183-080		C-CAP,S 2700P-50 B
C456	87-010-197-080		CAP, CHIP 0.01-25 DM
C458	87-010-178-080		CHIP CAP 1000P-50
C459	87-010-175-080		CAP 560P-50
C460	87-010-197-080		CAP, CHIP 0.01-25 DM
C461	87-012-158-080		C-CAP,S 390P-50 CH
C462	87-012-158-080		C-CAP,S 390P-50 CH
C601	87-012-140-080		CAP,CHIP S 470P-50 J CH
C602	87-012-140-080		CAP,CHIP S 470P-50 J CH
C607	87-010-182-080		C-CAP,S 2200P-50 B
C608	87-010-182-080		C-CAP,S 2200P-50 B

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C609	87-010-213-080		C-CAP,S 0.015-25 B
C610	87-010-213-080		C-CAP,S 0.015-25 B
C611	87-010-546-080		CAP, ELECT 0.33-50V M 11L SME
C612	87-010-546-080		CAP, ELECT 0.33-50V M 11L SME
C613	87-010-546-080		CAP, ELECT 0.33-50V M 11L SME
C614	87-010-546-080		CAP, ELECT 0.33-50V M 11L SME
C615	87-010-154-080		CAP CHIP 10P-50 D CH
C616	87-010-385-080		CAP, ELECT 220-25V M 11L SME
C617	87-010-385-080		CAP, ELECT 220-25V M 11L SME
C618	87-010-405-080		CAP, ELECT 10-50V M 11L SME
C630	87-012-142-080		CAP, S 0.33-16
C631	87-010-185-080		C-CAP,S 3900P-50 B
C632	87-010-185-080		C-CAP,S 3900P-50 B
C669	87-010-322-080		C-CAP,S 100P-50 CH
C670	87-010-322-080		C-CAP,S 100P-50 CH
C677	87-010-197-080		CAP, CHIP 0.01-25 DM
C771	87-010-263-080		CAP, ELECT 100-10VM 11L SME
C772	87-010-197-080		CAP, CHIP 0.01-25 KB
C782	87-010-197-080		CAP, CHIP 0.01-25 KB
C783	87-010-197-080		CAP, CHIP 0.01-25 KB
C784	87-010-197-080		CAP, CHIP 0.01-25 KB
C785	87-010-197-080		CAP, CHIP 0.01-25 KB
C786	87-010-197-080		CAP, CHIP 0.01-25 KB
C788	87-010-149-080		C-CAP,S 5P-50 CH
C789	87-A12-052-080		C-CAP,S 0.033-25 JB
C790	87-A12-052-080		C-CAP,S 0.033-25 JB
C791	87-010-196-080		CHIP CAPACITOR,0.1-25
C792	87-010-197-080		CAP, CHIP 0.01-25 DM
C793	87-010-404-080		CAP, ELECT 4.7-50V M 11L SME
C795	87-010-197-080		CAP, CHIP 0.01-25 DM
C796	87-010-197-080		CAP, CHIP 0.01-25 DM
C797	87-010-405-080		CAP, ELECT 10-50V M 11L SME
C798	87-010-197-080		CAP, CHIP 0.01-25 DM
C799	87-010-407-080		CAP, ELECT 33-50V M 11L SME
C800	87-012-369-080		C-CAP,S 0.047-50F
C801	87-010-403-080		CAP, ELECT 3.3-50V M 11L SME
C802	87-010-194-080		CAP, CHIP 0.047-25 ZF
C803	87-010-198-080		CAP, CHIP 0.022-25 KB
C804	87-010-263-080		CAP, ELECT 100-10V M 11L SME
C807	87-010-400-080		CAP, ELECT 0.47-50V M 11L SME
C808	87-010-401-080		CAP, ELECT 1-50V M 11L SME
C809	87-010-401-080		CAP, ELECT 1-50V M 11L SME
C810	87-010-196-080		CHIP CAPACITOR,0.1-25
C814	87-010-197-080		CAP, CHIP 0.01-25 KB
C815	87-010-403-080		CAP, ELECT 3.3-50V M 11L SME
C816	87-010-403-080		CAP, ELECT 3.3-50V M 11L SME
C821	87-010-405-080		CAP, ELECT 10-50V M 11L SME
C823	87-010-177-080		C-CAP,S 820P-50 SL
C824	87-010-405-080		CAP, ELECT 10-50 M 11L SME
C825	87-010-596-080		CAP, S 0.047-16
C842	87-010-197-080		CAP, CHIP 0.01-25 KB
C844	87-010-197-080		CAP, CHIP 0.01-25 KB
C850	87-010-408-080		CAP, ELECT 47-50V M 11L SME
C851	87-010-197-080		CAP, CHIP 0.01-25 KB
C852	87-010-197-080		CAP, CHIP 0.01-25 KB
C853	87-010-197-080		CAP, CHIP 0.01-25 KB
C858	87-010-196-080		CHIP CAPACITOR,0.1-25
C859	87-010-196-080		CHIP CAPACITOR,0.1-25
C860	87-010-197-080		CAP, CHIP 0.01-25 KB
C959	87-010-196-080		CHIP CAPACITOR,0.1-25
C960	87-010-196-080		CHIP CAPACITOR,0.1-25
C961	87-010-152-080		C-CAP,S 8P-50 CH
C963	87-015-785-080		CHIP CAPACITOR, 0.1FZ-25Z
C971	87-010-381-080		CAP, ELECT 330-16V M 11L SME
C972	87-010-404-080		CAP, ELECT 4.7-50V M 11L SME
C973	87-010-197-080		CAP, CHIP 0.01-25 KB
C974	87-010-197-080		CAP, CHIP 0.01-25 KB
C979	87-010-322-080		C-CAP,S 100P-50 CH
C981	87-010-260-080		CAP, ELECT 47-25V M 11L SME
C982	87-010-196-080		CHIP CAPACITOR,0.1-25

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C983	87-010-197-080		CAP, CHIP 0.01-25 KB
C984	87-010-197-080		CAP, CHIP 0.01-25 KB
C987	87-010-197-080		CAP, CHIP 0.01-25 KB
C991	87-010-312-080		C-CAP,S 15P-50 CH
C992	87-010-312-080		C-CAP,S 15P-50 CH
C993	87-010-178-080		CHIP CAP 1000P-50 KB
C995	87-010-178-080		CHIP CAP 1000P-50 KB
C997	87-010-196-080		CHIP CAPACITOR,0.1-25
C998	87-010-260-080		CAP, ELECT 47-25 M 11L SME
CF831	87-008-261-010		FILTER, SFE10.7MA5
CF832	87-008-261-010		FILTER, SFE10.7MA5
CN301	87-A60-620-010		CONN,3P V 2MM JMT
CN351	87-A60-625-010		CONN,8P V 2MM JMT
CN601	88-NF9-657-010		CONN,30P H BLK TYK-B(X)
CN602	87-A60-131-010		CONN,6P V FE
CNA1	8A-NF8-653-010		CONN ASSY,9P TID-A(480)<LH>
CNA1	8A-MA6-643-010		F-CABLE,9P 2.5 450MM<U>
CON301	8A-MA6-642-010		CONN ASSY,3P (PH)
CON351	8A-MA6-641-010		CONN ASSY,8P (RPB)
FC602	88-906-321-110		FF-CABLE,6P 1.25 320MM
FFE831	A8-8ZA-190-030		8ZA-1 FEUNM
J202	87-A60-602-010		JACK,DIA6.3 BLK ST W/SW TC
J203	87-A60-238-010		TERMINAL,SP 4P (MSC)
J602	87-A60-881-010		JACK,PIN 2P MSP 242V05 PBSN
J831	87-A60-202-010		TERMINAL,ANT 4P MSP-154V-02
L101	87-003-383-010		COIL,1UH-K
L102	87-003-383-010		COIL,1UH-K
L451	87-007-342-010		COIL,OSC 85K BIAS
L801	87-A50-540-010		COIL,FM DET(TOK)
L802	87-A91-551-010		FLTR,PCFJZH-450 L(TOK)
L811	87-005-847-080		COIL,2.2UHK (CECS)
L832	87-005-847-080		COIL,2.2UHK (CECS)
L951	8A-NF8-667-010		COIL,AM PACK 4(TOK)
R25	87-A00-261-080		RES,M/F 0.56-1W J<U>
R129	87-A00-669-080		RES,M/F 0.22-2W J RA
R130	87-A00-669-080		RES,M/F 0.22-2W J RA
R143	87-A00-440-050		RES,220-1/2W J RP
R144	87-A00-440-050		RES,220-1/2W J RP
R145	87-A00-440-050		RES,220-1/2W J RP
R146	87-A00-440-050		RES,220-1/2W J RP
R790	87-010-197-080		C-CAP,S 0.01-25 KB
SFR451	87-024-355-080		SFR,33K H EVN DJAA03
SFR452	87-024-355-080		SFR,33K H EVN DJAA03
WH1	87-A90-510-010		HLDR,WIRE 2.5-9P
X991	87-A70-061-010		VIB,XTAL 4.500MHZ CSA-309

FRONT C.B

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C101	87-A11-147-080		CAPACTOR TC U 0.047-50 ZF
C103	87-010-248-040		CAP,E 220-10 SME
C104	87-010-246-040		CAP,E 47-35 SME
C105	87-018-205-080		CAP,TC U 0.022-25 ZF
C107	87-018-205-080		CAP,TC U 0.022-25 ZF
C108	87-018-131-080		CAP,TC U 1000P-50 KB
C109	87-018-131-080		CAP,TC U 1000P-50 KB
C110	87-018-131-080		CAP,TC U 1000P-50 KB
C111	87-018-205-080		CAP,TC U 0.022-25 ZF
C113	87-018-131-080		CAP,TC U 1000P-50V KB
C114	87-018-147-080		CAP,TC-U 10P-50 J CH
C115	87-018-128-080		CAP,TC U 560P-50 KB
C116	87-010-400-040		CAP,E 0.47-50 M 11L SME
C117	87-018-214-080		CAP TC U 0.1-50F SA
C118	87-010-248-040		CAP,E 220-10 SME
C119	87-010-248-040		CAP,E 220-10 SME
C120	87-018-123-080		CAP,TC U 220P-50V KB
C123	87-018-214-080		CAP TC U 0.1-50F SA
C124	87-018-214-080		CAP TC U 0.1-50F SA
C125	87-010-263-040		CAP,E 100-10 SME
C126	87-018-214-080		CAP TC U 0.1-50F SA
C130	87-010-405-040		CAP,E 10-50 M 11L SME

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C201	87-018-118-080		CAP,TC-U 82P-50 B
C202	87-018-117-080		CAP,TC-U 68P-50 SL
C205	87-018-117-080		CAP,TC-U 68P-50 SL
C208	87-018-117-080		CAP,TC-U 68P-50 SL
C209	87-018-117-080		CAP,TC-U 68P-50 SL
C210	87-018-117-080		CAP,TC-U 68P-50 SL
C211	87-A11-147-080		CAPACTOR TC U 0.047-50 F
C212	87-010-404-040		CAP,E 4.7-50 SME
C213	87-010-404-040		CAP,E 4.7-50 SME
C216	87-A11-147-080		CAPACTOR TC U 0.047-50 F
C701	87-010-384-040		CAP,E 100-25 SME
CN101	88-NF9-658-010		CONN,30P BLK TYK-B(P)
CN701	87-A60-673-010		CONN,9P H 2MM JMT
CN801	87-A60-138-010		CONN,13P VFE
FC801	88-913-271-110		FF-CABLE,13P 1.25
FL201	8A-NFA-604-010		FL,10-BT-224GNK
L101	87-A50-050-010		COIL,CLK 4.19M(COI)
LED101	87-A40-317-080		LED,SLR-342VCT31 RED
S101	87-A91-623-010		SW,RTRY EC12E2430403-25MM
S301	87-A90-095-080		SW,TACT EVQ11G04M
S302	87-A90-095-080		SW,TACT EVQ11G04M
S303	87-A90-095-080		SW,TACT EVQ11G04M
S304	87-A90-095-080		SW,TACT EVQ11G04M
S305	87-A90-095-080		SW,TACT EVQ11G04M
S306	87-A90-095-080		SW,TACT EVQ11G04M
S307	87-A90-095-080		SW,TACT EVQ11G04M
S308	87-A90-095-080		SW,TACT EVQ11G04M
S309	87-A90-095-080		SW,TACT EVQ11G04M
S321	87-A90-095-080		SW,TACT EVQ11G04M
S322	87-A90-095-080		SW,TACT EVQ11G04M
S323	87-A90-095-080		SW,TACT EVQ11G04M
S324	87-A90-095-080		SW,TACT EVQ11G04M
S325	87-A90-095-080		SW,TACT EVQ11G04M
S326	87-A90-095-080		SW,TACT EVQ11G04M
S327	87-A90-095-080		SW,TACT EVQ11G04M

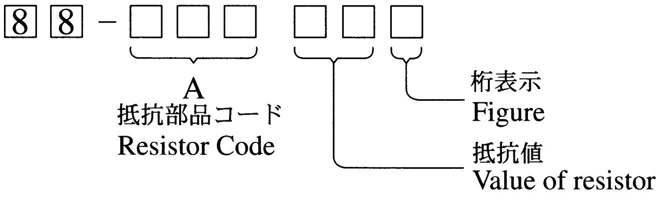
REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
S328	87-A90-095-080		SW,TACT EVQ11G04M
S329	87-A90-095-080		SW,TACT EVQ11G04M
S330	87-A90-095-080		SW,TACT EVQ11G04M
S331	87-A90-095-080		SW,TACT EVQ11G04M
SFR701	87-024-352-080		SFR,4.7K H EVN DJAA03

PT C.B

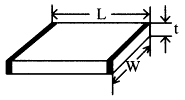
REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C15	87-010-387-080		CAP,E 470-25 SME<LH>
C16	87-010-403-080		CAP, ELECT 3.3-50V<LH>
C183	87-010-387-080		CAP,E 470-25 SME<U>
C184	87-010-403-080		CAP, ELECT 3.3-50V SME<U>
CN1	87-A61-110-010		CONN,9P V TID-A<LH>
! PT1	8A-MA6-663-010		PT,AMA-6 LH<LH>
⚠ PT1	8A-MA6-661-010		PT,AMA-6 U<U>
! PT2	8A-NF8-673-010		PT,SUB ANF-8 (H)KAMI<LH>
! PT181	8A-NF8-661-010		PT,SUB ANF-8 (U)<U>
! RY1	87-A91-300-010		RELAY,AC 12V-ALA2PF12<LH>
⚠ RY181	87-A90-976-010		RELAY,AC12V SDT-S-112LMR<U>
! S1	87-A90-165-010		SW,SL 1-2-3 SWS2301<LH>
⚠ T1	87-A60-317-010		TERMINAL, 1P MSC<LH>
! T2	87-A60-317-010		TERMINAL, 1P MSC<LH>
! T181	87-A60-317-010		TERMINAL, 1P MSC<U>
⚠ T182	87-A60-317-010		TERMINAL, 1P MSC<U>
WH181	87-A90-510-010		HLDR,WIRE 2.5-9P<U>

○チップ抵抗部品コード／CHIP RESISTOR PART CODE

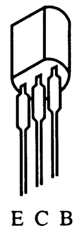
チップ抵抗部品コードの成り立ち
Chip Resistor Part Coding



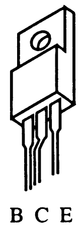
チップ抵抗
Chip resistor

容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm) 外形／Form	L	W	t	抵抗コード : A Resistor Code : A
1/16W	1005	±5%	CJ		1.0	0.5	0.35	104
1/16W	1608	±5%	CJ		1.6	0.8	0.45	108
1/10W	2125	±5%	CJ		2	1.25	0.45	118
1/8W	3216	±5%	CJ		3.2	1.6	0.55	128

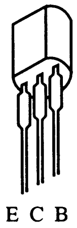
TRANSISTOR ILLUSTRATION



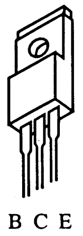
KTA1266
KTC3198
KTC3199



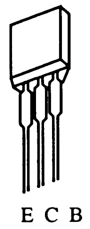
2SC3331



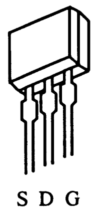
CSC4115



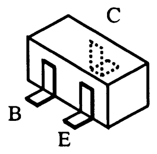
2SB1370



DTC114ES



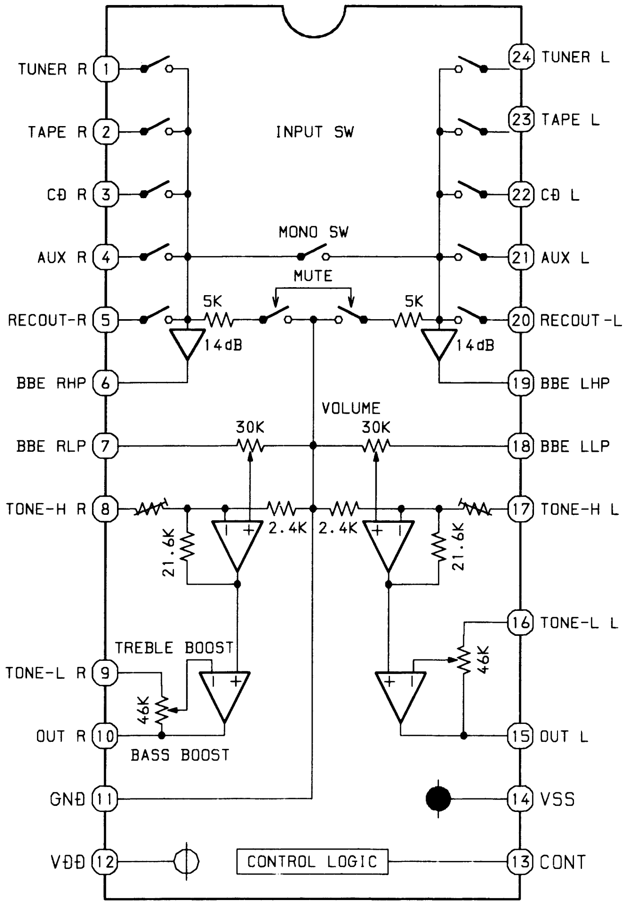
2SJ460
2SK2541



2SA1235
2SC2714
2SC3052
CMBT5401
CMBT5551
DTC114EK
RT1N441C
RT1P144C

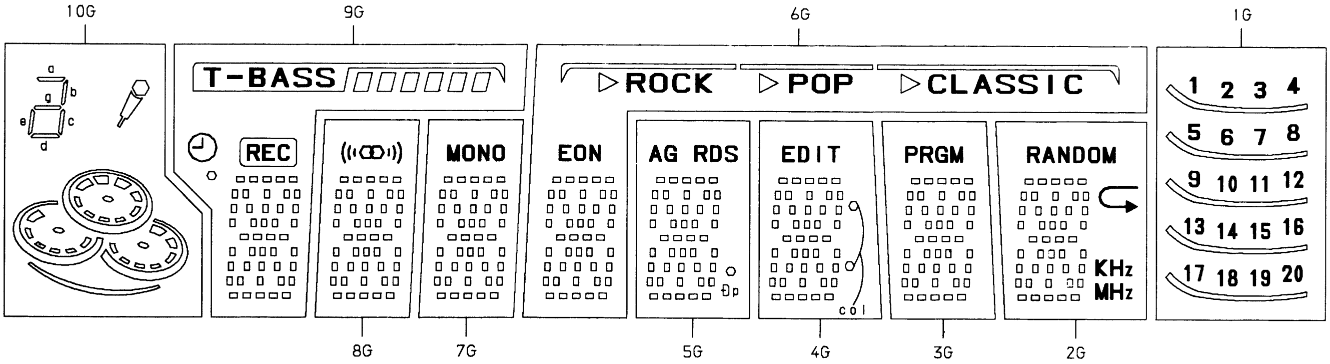
IC BLOCK DIAGRAM – 1

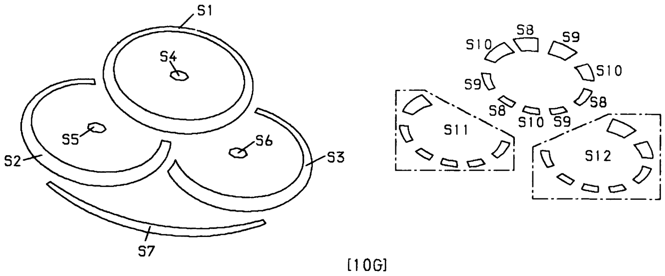
IC, M62495AFP


TUNER R 1
TAPE R 2
CD R 3
AUX R 4
RECOUT-R 5
BBE RHP 6
BBE RLP 7
TONE-H R 8
TONE-L R 9
OUT R 10
GND 11
VDD 12
24 TUNER L
23 TAPE L
22 CD L
21 AUX L
20 RECOUT-L
19 BBE LHP
18 BBE LLP
17 TONE-H L
16 TONE-L L
15 OUT L
14 VSS
13 CONT
INPUT SW
MONO SW
MUTE
5K
5K
14dB
14dB
VOLUME
30K
30K
2.4K
2.4K
21.6K
21.6K
TREBLE BOOST
BASS BOOST
46K
46K
CONTROL LOGIC

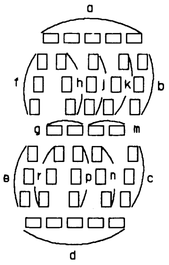
FL (10–BT–224GNK) GRID ASSIGNMENT / ANODE CONNECTION

GRID ASSIGNMENT

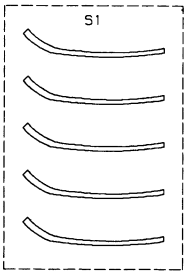

10G
9G
6G
1G
T-BASS
▷ROCK
▷POP
▷CLASSIC
REC
MONO
EON
AG RDS
EDIT
PRGM
RANDOM
KHz
MHz
col
Đp
1 2 3 4
5 6 7 8
9 10 11 12
13 14 15 16
17 18 19 20
8G
7G
5G
4G
3G
2G


S1
S4
S5
S6
S2
S3
S7
S8
S9
S10
S11
S12

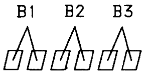
[10G]


a
f
b
h
j
k
g
m
e
r
p
n
c
d

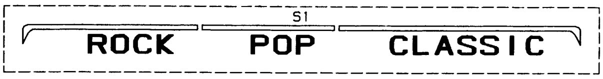
[9G~2G]



[1G]



[9G]

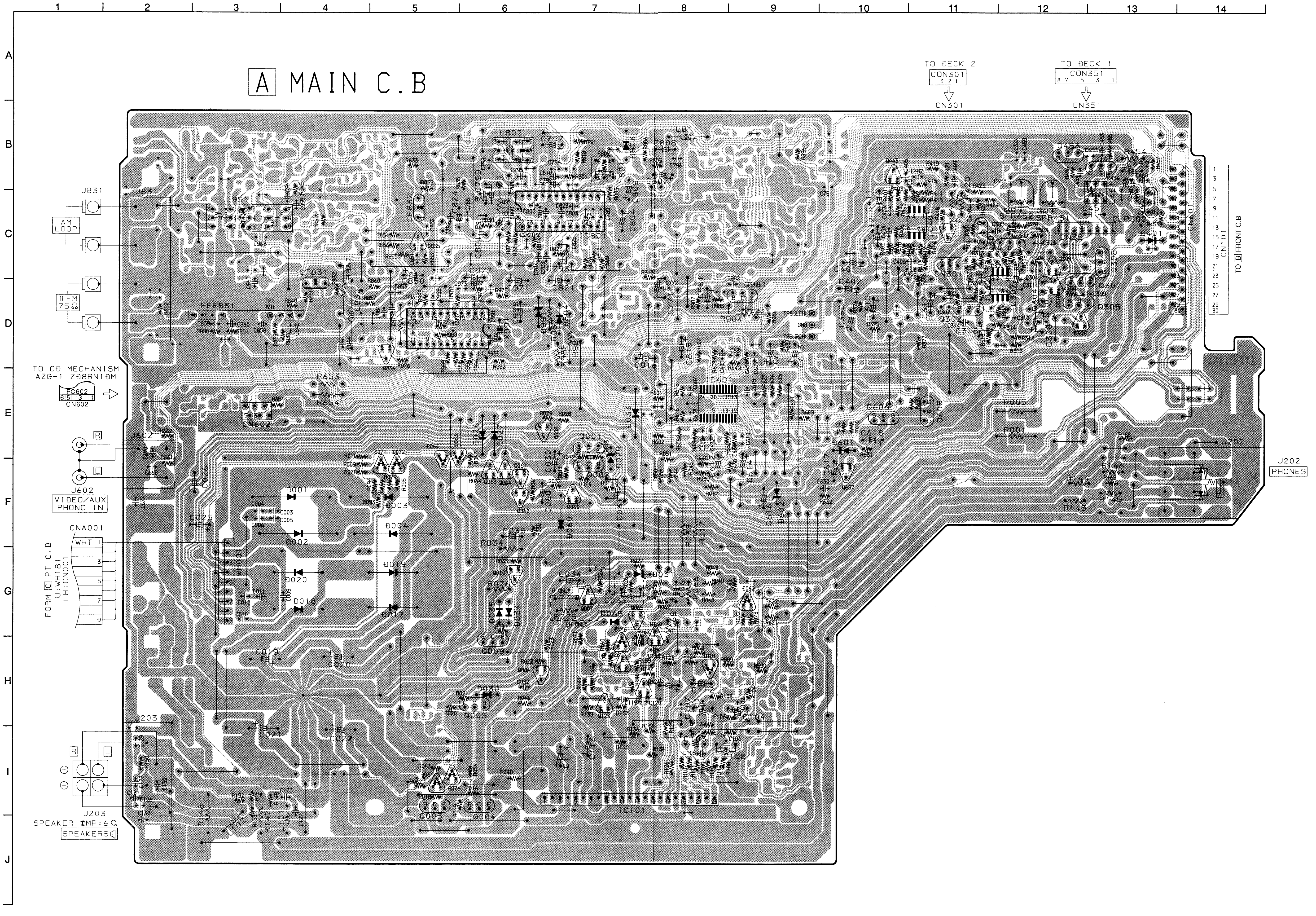

S1
ROCK
POP
CLASSIC

[6G]

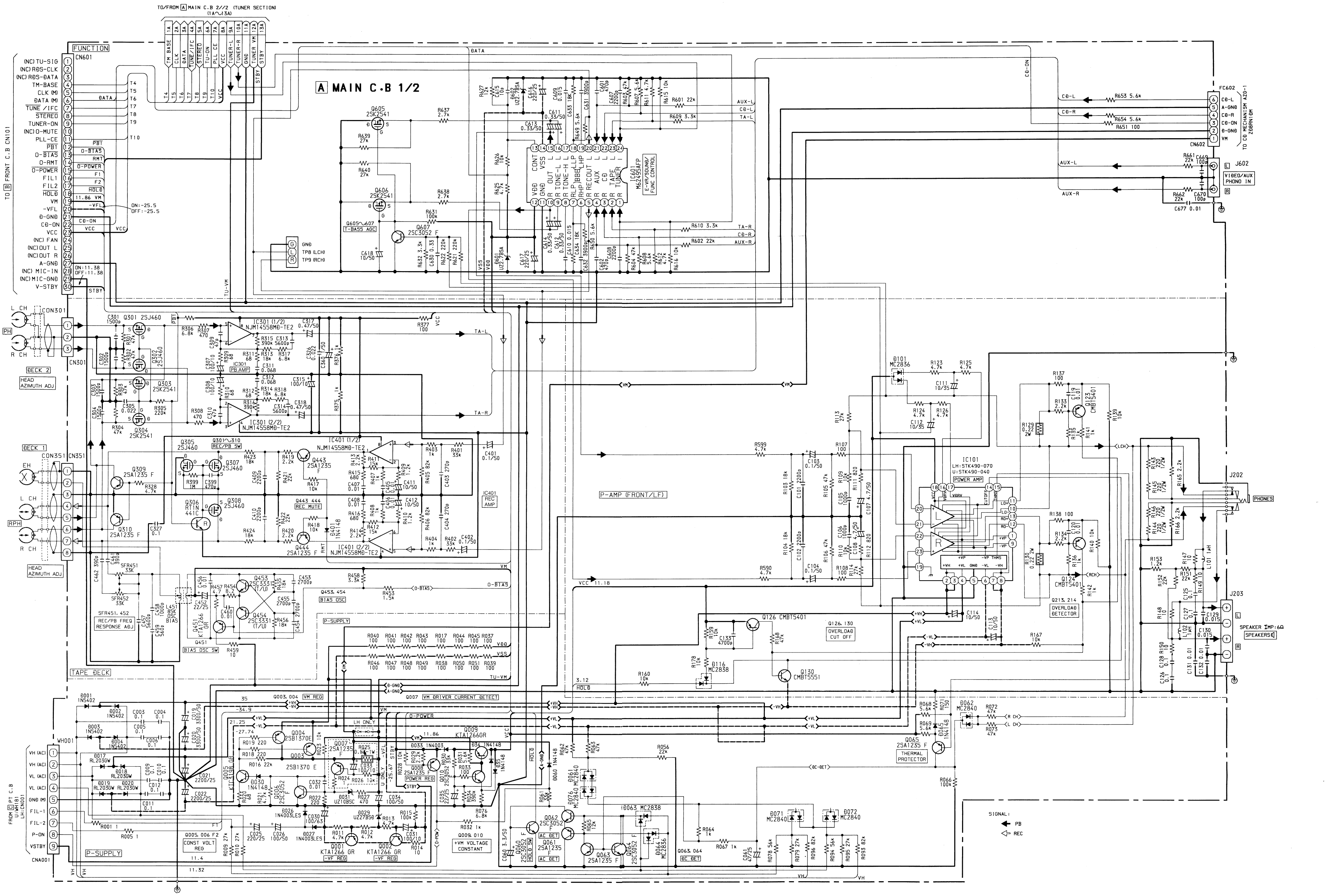
ANODE CONNECTION

	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	–	d	d	d	d	d	d	d	d	**20**
P2	S7	n	n	n	n	n	n	n	n	**19**
P3	–	p	p	p	p	p	p	p	p	**18**
P4	S11	r	r	r	r	r	r	r	r	**17**
P5	S5	e	e	e	e	e	e	e	e	**16**
P6	S2	c	c	c	c	c	c	c	c	**15**
P7	S12	g	g	g	g	g	g	g	g	**14**
P8	S6	m	m	m	m	m	m	m	m	**13**
P9	S3	f	f	f	f	f	f	f	f	**12**
P10	S10	b	b	b	b	b	b	b	b	**11**
P11	S9	k	k	k	k	k	k	k	k	**10**
P12	S8	j	j	j	j	j	j	j	j	**9**
P13	S4	h	h	h	h	h	h	h	h	**8**
P14	S1	a	a	a	a	a	a	a	a	**7**
P15	–	◷	((ıꝏı))	**MONO**	**EON**	Đp	c o l (DOWN)	–	**MHz**	**6**
P16	–	**REC**	–	–	–	**AG**	c o l (UP)	–	**KHz**	**5**
P17	🎤	○	–	–	▷ (CLASSIC)	**RDS**	**EDIT**	**PRGM**	↪	**4**
P18	a, d, g	T-BASS	–	–	▷ (ROCK)	–	–	–	–	**3**
P19	b	B1	–	–	▷ (POP)	–	–	–	–	**2**
P20	c	B2	–	–	S1	–	–	–	**RANDOM**	**1**
P21	e	B3	–	–	–	–	–	–	–	S1

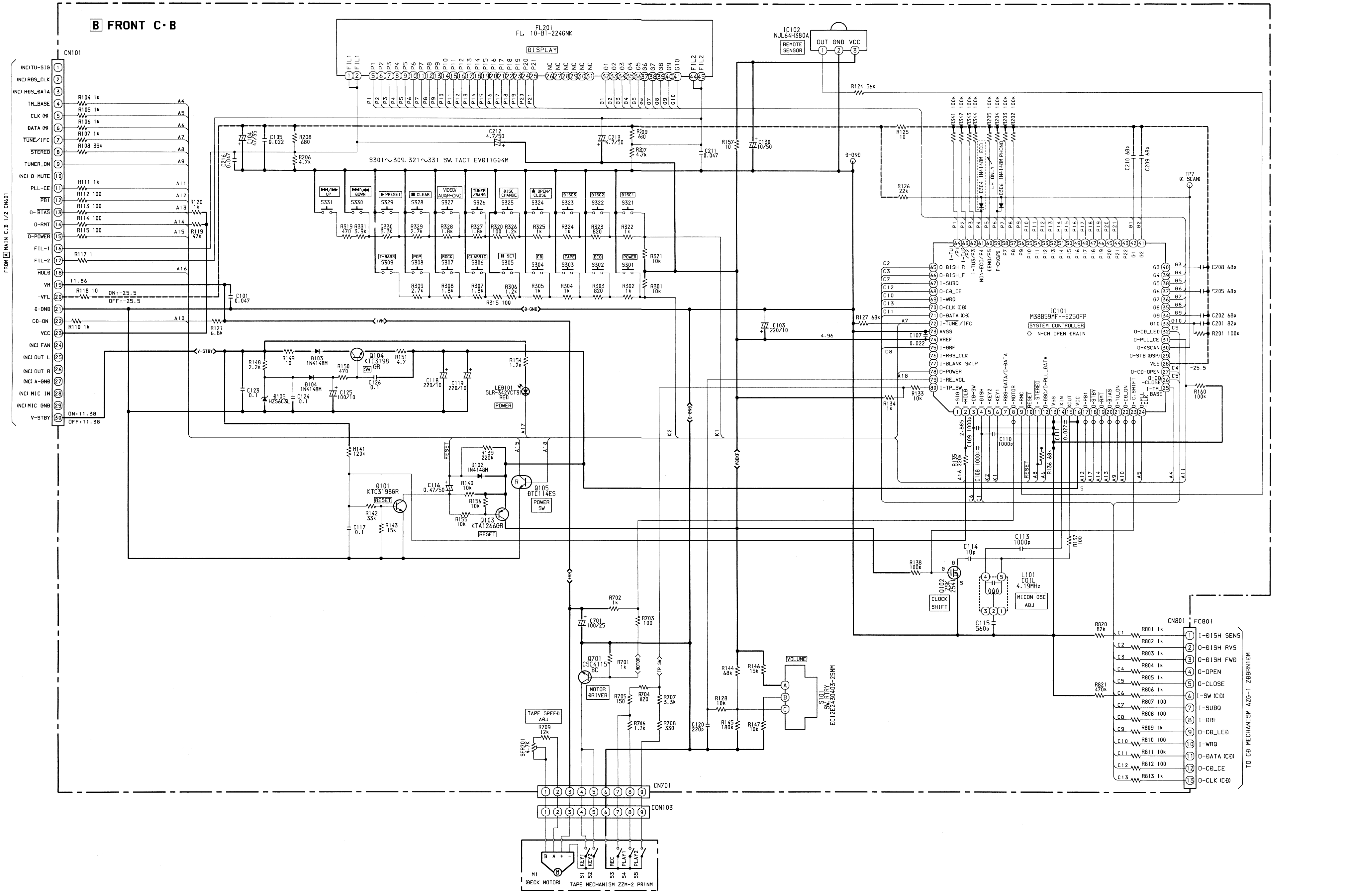
WIRING – 1 (MAIN)


1
2
3
4
5
6
7
8
9
10
11
12
13
14
A
B
C
D
E
F
G
H
I
J
A MAIN C.B
TO DECK 2
CON301
3 2 1
CN301
TO DECK 1
CON351
8 7 5 3 1
CN351
CN101
TO B FRONT C.B
J831
AM LOOP
FM 75Ω
TO CD MECHANISM
AZG-1 ZD8RN1DM
FC602
6 5 3 1
CN602
J602
R
L
VIDEO/AUX PHONO IN
CNA001
WHT 1
3
5
7
9
FORM C PT C.B
U:WH181
LH:CN001
J203
R
L
SPEAKER IMP:6Ω
SPEAKERS
J202
PHONES
IC101
IC301
IC601
IC991

SCHEMATIC DIAGRAM – 1 (MAIN 1 / 2)

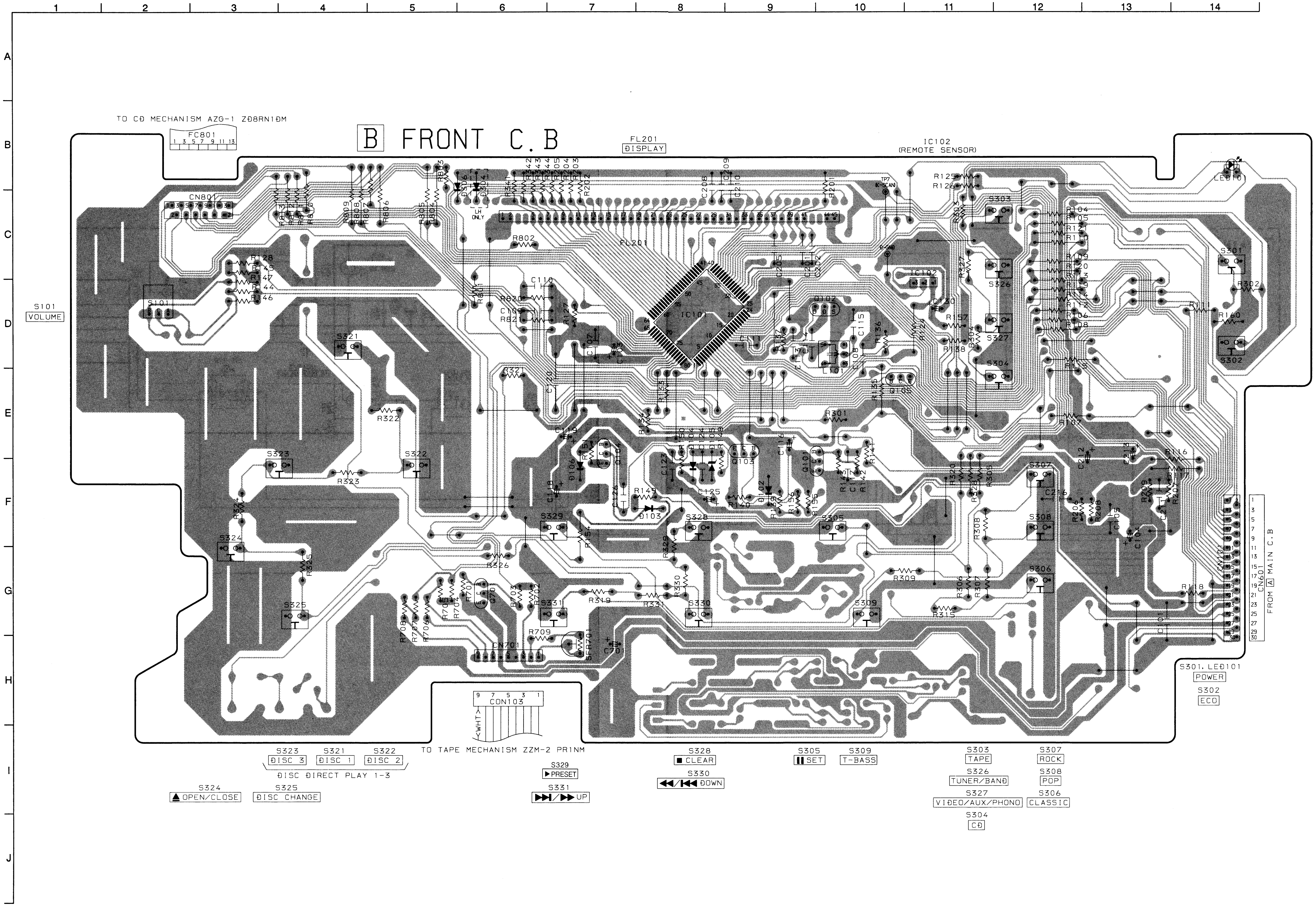

A MAIN C.B 1/2
TO/FROM A MAIN C.B 2/2 (TUNER SECTION) (1A~13A)
FUNCTION
CN601
TO B FRONT C.B CN101
IC601 M62495AFP E-VR/SOUND/FUNC CONTROL
Q605 2SK2541
Q606 2SK2541
Q607 2SC3052 F
Q605~607 T-BASS AGC
FC602
CN602
TO CD MECHANISM AZG-1 ZGBRNIOM
J602 VIDEO/AUX PHONO IN
CON301
DECK 2
HEAD AZIMUTH ADJ
IC301 NJM14558MD-TE2
PB AMP
Q301 2SJ460
Q302 2SJ460
Q303 2SK2541
Q304 2SK2541
DECK 1
CON351
CN351
Q301~310 REC/PB SW
IC401 NJM14558MD-TE2
REC AMP
Q443 444 REC MUTE
Q451 BIAS OSC SW
Q453 454 BIAS OSC
SFR451 452 REC/PB FREQ RESPONSE ADJ
L451 85K OSC BIAS
TAPE DECK
P-SUPPLY
P-AMP (FRONT/LF)
IC101 LH:STK490-070 U:STK490-040
POWER AMP
Q123 CMBT5401
Q124 CMBT5401
Q213, 214 OVERLOAD DETECTOR
Q126 CMBT5401
Q130 CMBT5551
Q126, 130 OVERLOAD CUT OFF
D101 MC2836
D116 MC2838
J202 PHONES
J203 SPEAKER IMP: 6Ω SPEAKERS
Q003, 004 VM REG
Q007 VM DRIVER CURRENT DETECT
Q005, 006 F2 CONST VOLT REG
Q001 KTA1266 GR -VF REG
Q002 KTA1266 GR -VF REG
Q009, 010 +VM VOLTAGE CONSTANT
Q008 2SA1235 F POWER REG
Q009 KTA1266GR
Q060 2SC3052 F HOLD SW
Q061 2SA1235 F AC DET
Q062 2SC3052 AC DET
Q063 2SA1235 F
Q064 2SC3052 F
Q063, 064 DC DET
D063 MC2838
D071 MC2840
D072 MC2840
D062 MC2840
Q065 2SA1235 F THERMAL PROTECTOR
WH001
CNA001
FROM C PT C.B U:WH101 LH:CNA001
SIGNAL: PB REC

SCHEMATIC DIAGRAM – 2 (FRONT)

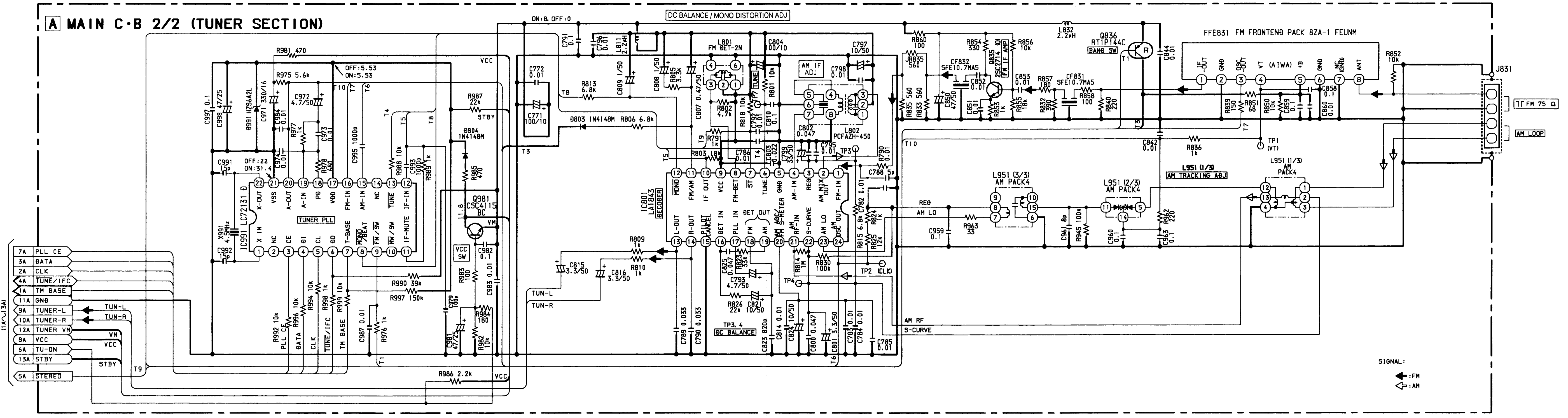


B FRONT C·B
CN101
FROM A MAIN C.B 1/2 CN601
(NC)TU-SIG
(NC) RDS_CLK
(NC) RDS_DATA
TM_BASE
CLK (M)
DATA (M)
TUNE/IFC
STEREO
TUNER_ON
(NC) O-MUTE
PLL-CE
PBI
O-BIAS
O-RMT
O-POWER
FIL-1
FIL-2
HOLD
VM
-VFL
D-GND
CD-ON
VCC
(NC) FAN
(NC) OUT L
(NC) OUT R
(NC) A-GND
(NC) MIC IN
(NC) MIC GND
V-STBY
ON:-25.5
OFF:-25.5
ON:11.38
OFF:11.38
FL201
FL 10-BT-224GNK
DISPLAY
IC102
NJL64H380A
REMOTE SENSOR
OUT GND VCC
S301∼309, 321∼331 SW, TACT EVQ11G04M
UP
DOWN
PRESET
CLEAR
VIDEO/AUX/PHONO
TUNER /BAND
DISC CHANGE
OPEN/CLOSE
DISC3
DISC2
DISC1
T-BASS
POP
ROCK
CLASSIC
SET
CD
TAPE
ECO
POWER
Q104 KTC3198 GR
SW
LED101 SLR-342VCT31 RED
POWER
Q101 KTC3198GR
RESET
Q102 DTC114ES
POWER SW
Q103 KTA1266GR
RESET
IC101
M38B59MFH-E250FP
SYSTEM CONTROLLER
O N-CH OPEN DRAIN
TP7 (K-SCAN)
Q102 2SK254
CLOCK SHIFT
L101 COIL 4.19MHz
MICON OSC ADJ
Q701 CSC4115 BC
MOTOR DRIVER
TAPE SPEED ADJ
SFR701 4.7k
VOLUME
S101 SW, ROTARY EC12E2430403-25MM
CN801 FC801
I-DISH SENS
O-DISH RVS
O-DISH FWD
O-OPEN
O-CLOSE
I-SW (CD)
I-SUBQ
I-DRF
O-CD_LED
I-WRQ
O-DATA (CD)
O-CD_CE
O-CLK (CD)
TO CD MECHANISM AZG-1 ZDBRNIEM
CN701
CON103
M1 (DECK MOTOR)
TAPE MECHANISM ZZM-2 PRINM
KEY1 KEY2 REC PLAY1 PLAY2
S1 S2 S3 S4 S5

WIRING – 2 (FRONT)

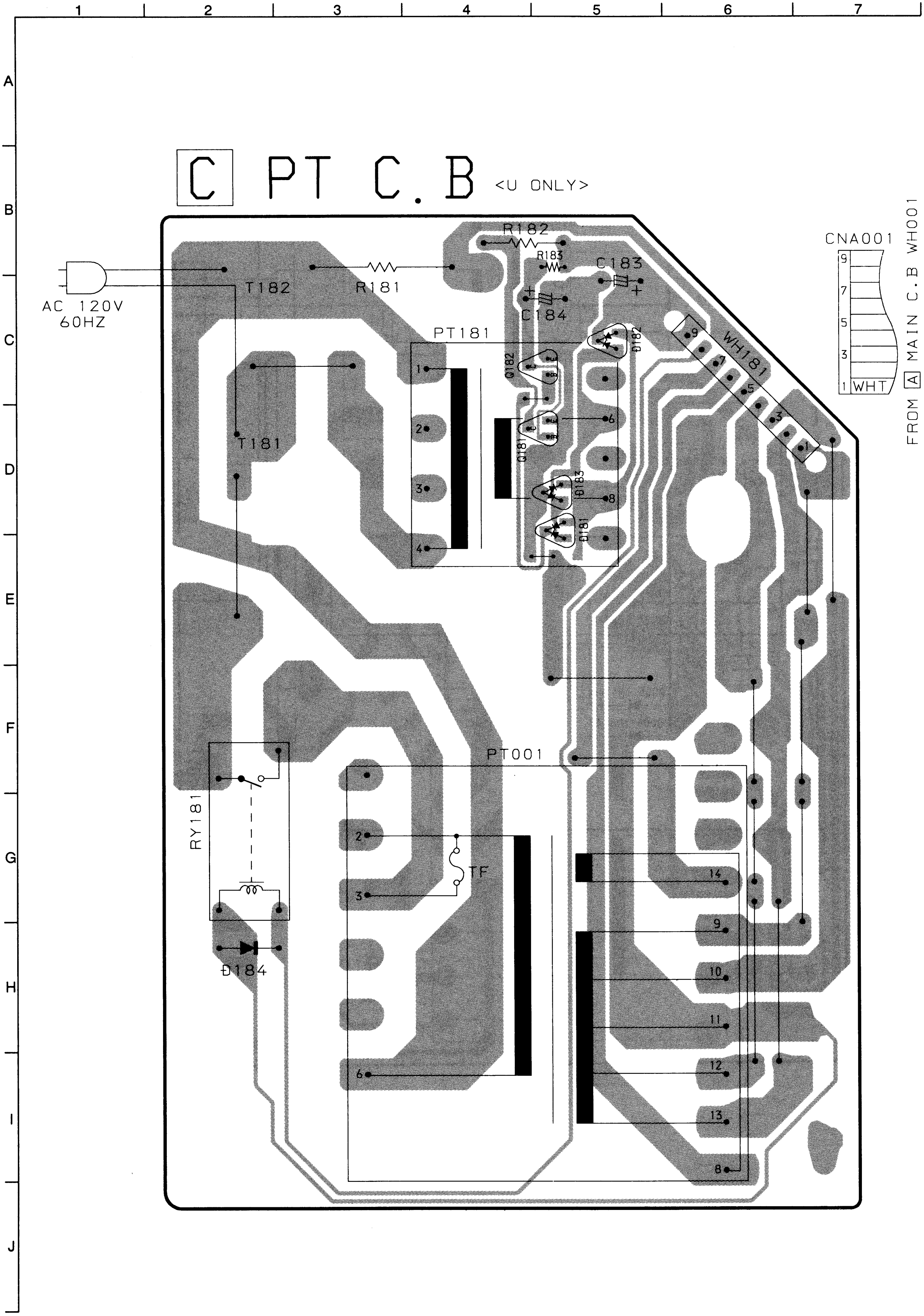

1 2 3 4 5 6 7 8 9 10 11 12 13 14
A B C D E F G H I J
B FRONT C.B
TO CD MECHANISM AZG-1 ZD8RN1DM
FC801
CN801
FL201
DISPLAY
IC102
(REMOTE SENSOR)
IC101
LED101
S101
VOLUME
CN701
CON103
<WHT>
TO TAPE MECHANISM ZZM-2 PR1NM
CN101
FROM A MAIN C.B CN601
LH ONLY
S301, LED101
POWER
S302
ECO
S323
DISC 3
S321
DISC 1
S322
DISC 2
DISC DIRECT PLAY 1-3
S324
▲ OPEN/CLOSE
S325
DISC CHANGE
S329
▶ PRESET
S331
▶▶I/▶▶ UP
S328
■ CLEAR
S330
◀◀/I◀◀ DOWN
S305
II SET
S309
T-BASS
S303
TAPE
S326
TUNER/BAND
S327
VIDEO/AUX/PHONO
S304
CD
S307
ROCK
S308
POP
S306
CLASSIC

SCHEMATIC DIAGRAM – 3 (MAIN 2 / 2)

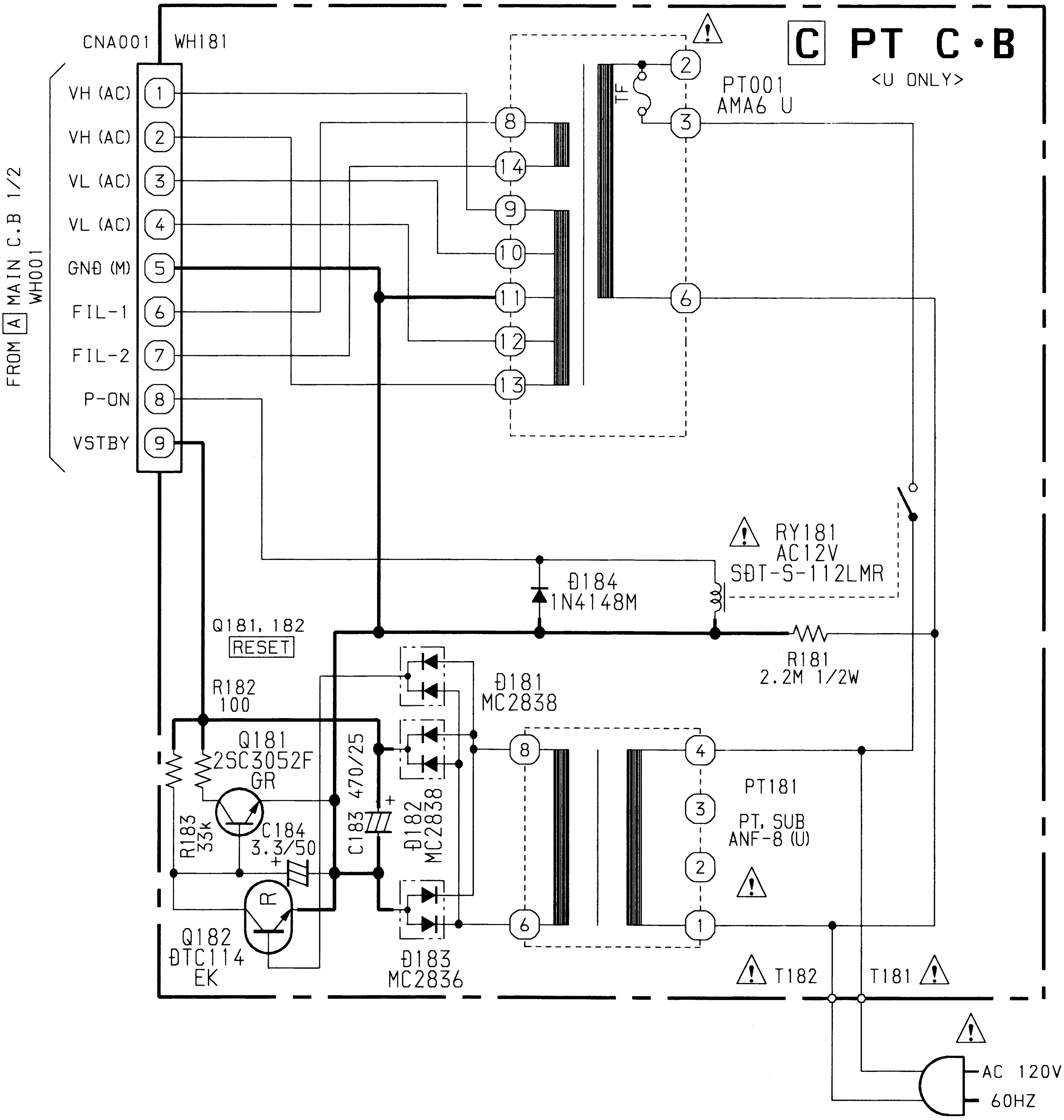


A MAIN C·B 2/2 (TUNER SECTION)
DC BALANCE / MONO DISTORTION ADJ
IC991 LC72131 D
TUNER PLL
IC801 LA1843
DECODER
Q981 C5C4115 BC
VCC SW
X991 4.5MHz
D991 HZS6A2L
D803 1N4148M
D804 1N4148M
L801 FM DET-2N
L802 PCFAZH-450
AM IF ADJ
TUNE
CF832 SFE10.7MA5
CF831 SFE10.7MA5
Q835 2SC2714 (O)
FM IF AMP
Q836 RT1P144C
BAND SW
L832 2.2μH
FFE831 FM FRONTEND PACK 8ZA-1 FEUNM
IF-OUT
GND
OSC-OUT
VT (AIWA)
+B
GND
NC (GND)
ANT
J831
FM 75 Ω
AM LOOP
L951 (3/3) AM PACK4
L951 (2/3) AM PACK4
L951 (1/3) AM PACK4
AM TRACKING ADJ
TP1 (VT)
TP2 (CLK)
TP3
TP4
TP3, 4
DC BALANCE
REG
AM LO
AM RF
S-CURVE
TUN-L
TUN-R
VCC
VM
STBY
ON:8, OFF:0
OFF:5.53 ON:5.53
OFF:22 ON:31.4
TO/FROM A MAIN C.B 1/2 (1A~13A)
7A PLL CE
3A DATA
2A CLK
4A TUNE/IFC
1A TM BASE
11A GND
9A TUNER-L
10A TUNER-R
12A TUNER VM
8A VCC
6A TU-ON
13A STBY
5A STEREO
SIGNAL:
:FM
:AM

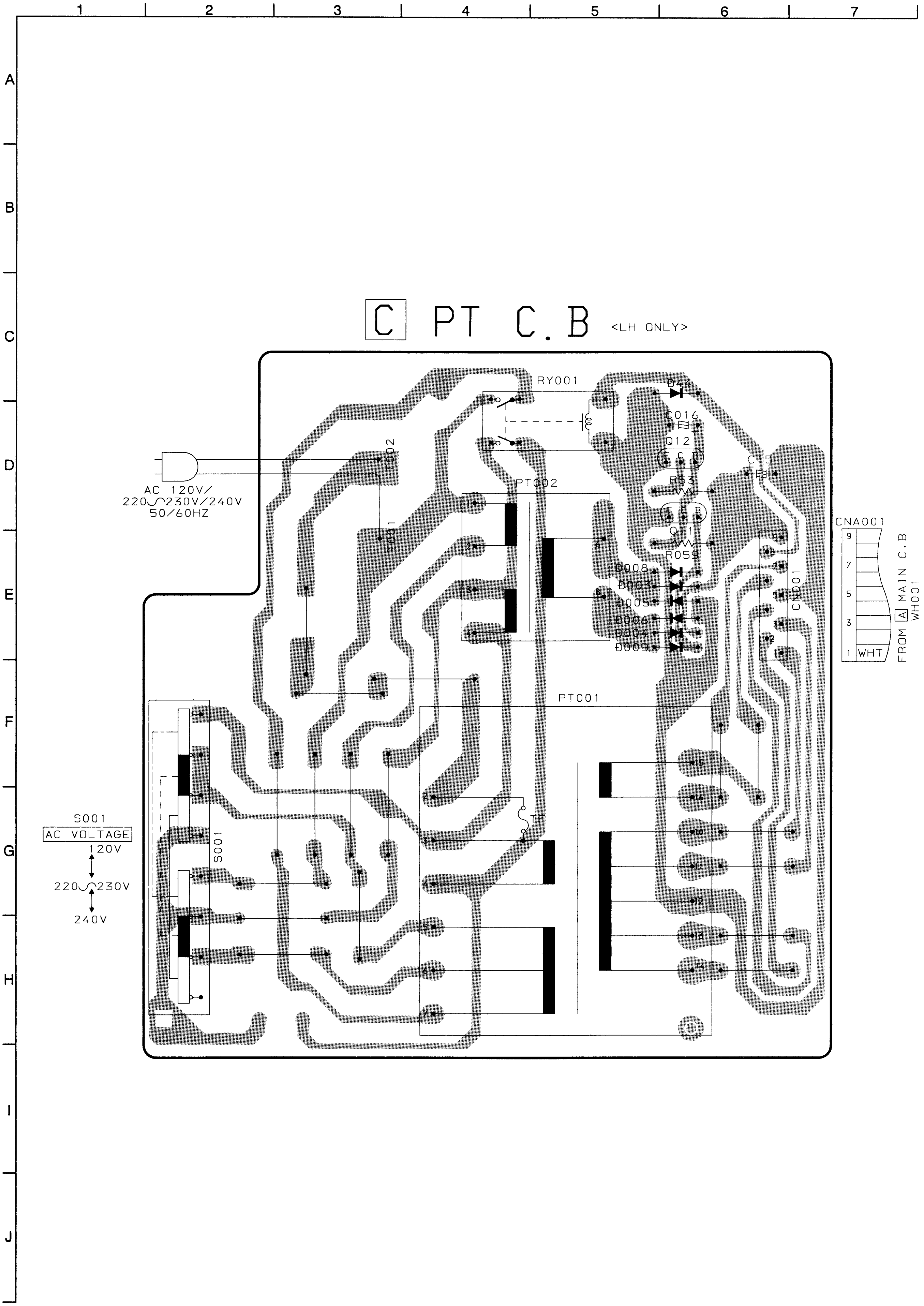
WIRING – 3 (U : PT)


1
2
3
4
5
6
7
A
B
C
D
E
F
G
H
I
J
C PT C.B
<U ONLY>
AC 120V
60HZ
T182
R181
R182
R183
C183
C184
PT181
Q182
Q181
D182
D183
D181
WH181
CNA001
9
7
5
3
1
WHT
FROM A MAIN C.B WH001
T181
RY181
D184
PT001
TF
14
9
10
11
12
13
8

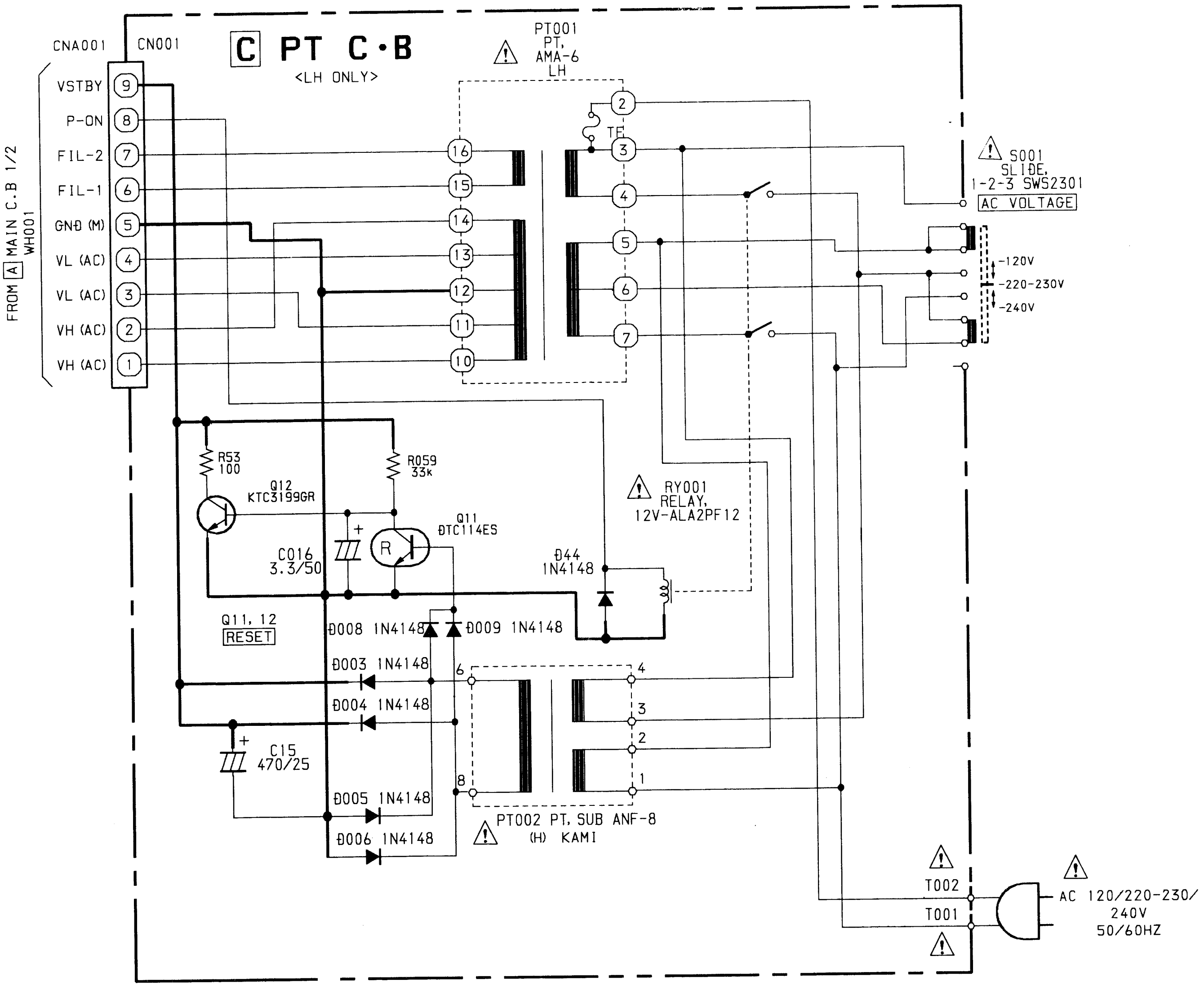
SCHEMATIC DIAGRAM – 4 (U : PT)


C PT C•B
<U ONLY>
FROM A MAIN C.B 1/2
WH001
CNA001
WH181
VH (AC) 1
VH (AC) 2
VL (AC) 3
VL (AC) 4
GND (M) 5
FIL-1 6
FIL-2 7
P-ON 8
VSTBY 9
PT001
AMA6 U
TF
2
3
6
8
14
9
10
11
12
13
RY181
AC12V
SDT-S-112LMR
D184
1N4148M
R181
2.2M 1/2W
Q181, 182
RESET
R182
100
Q181
2SC3052F
GR
R183
33k
C184
3.3/50
C183 470/25
D182
MC2838
D181
MC2838
D183
MC2836
Q182
DTC114
EK
R
PT181
PT, SUB
ANF-8 (U)
8
6
4
3
2
1
T182
T181
AC 120V
60HZ

WIRING – 4 (LH : PT)

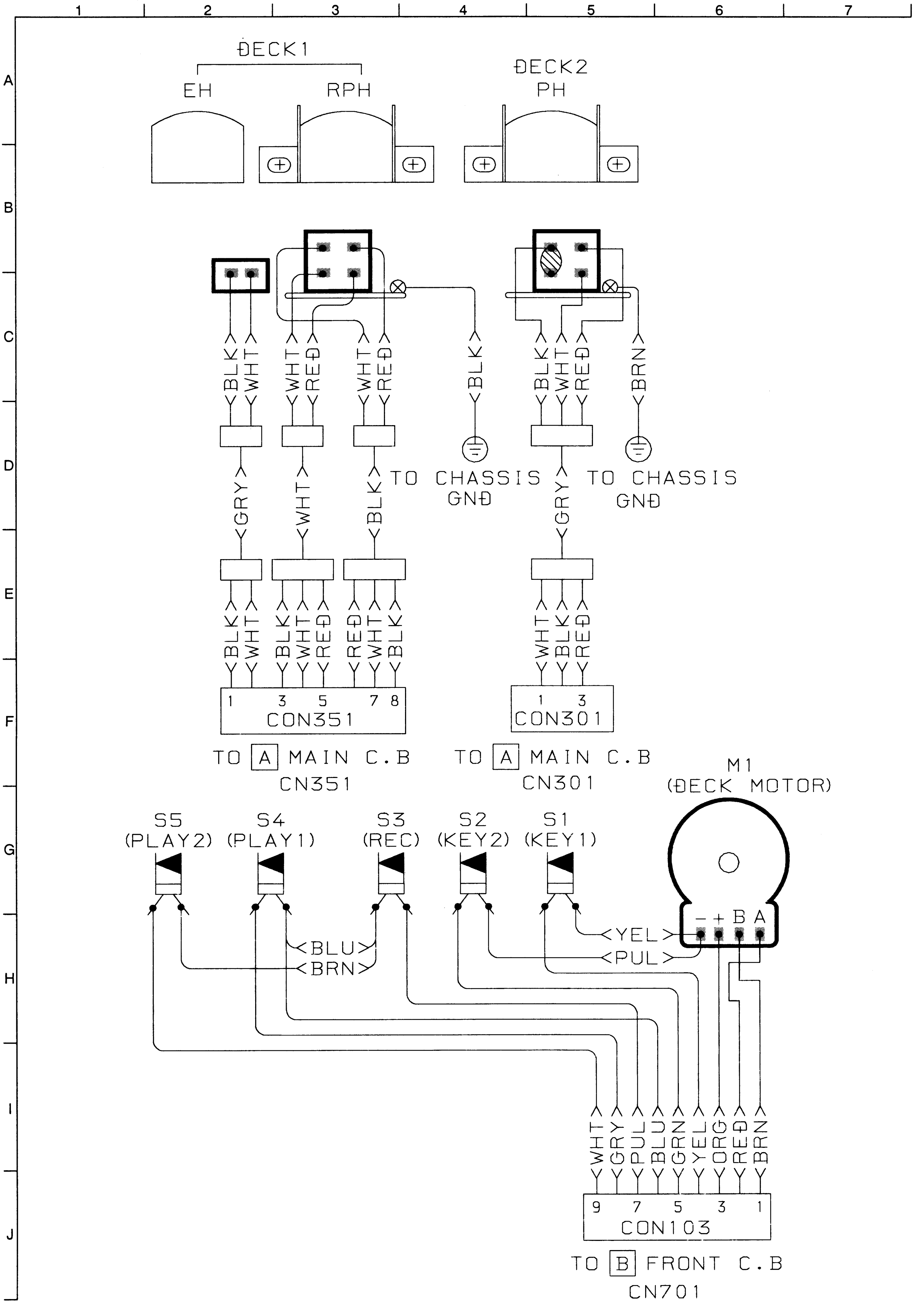

1
2
3
4
5
6
7
A
B
C
D
E
F
G
H
I
J
C PT C.B
<LH ONLY>
RY001
D44
C016
Q12
E C B
C15
R53
E C B
Q11
R059
D008
D003
D005
D006
D004
D009
PT002
T002
T001
AC 120V/
220∿230V/240V
50/60HZ
CNA001
9
7
5
3
1
WHT
FROM A MAIN C.B
WH001
CN001
PT001
TF
S001
AC VOLTAGE
120V
220∿230V
240V
S001

SCHEMATIC DIAGRAM – 5 (LH : PT)

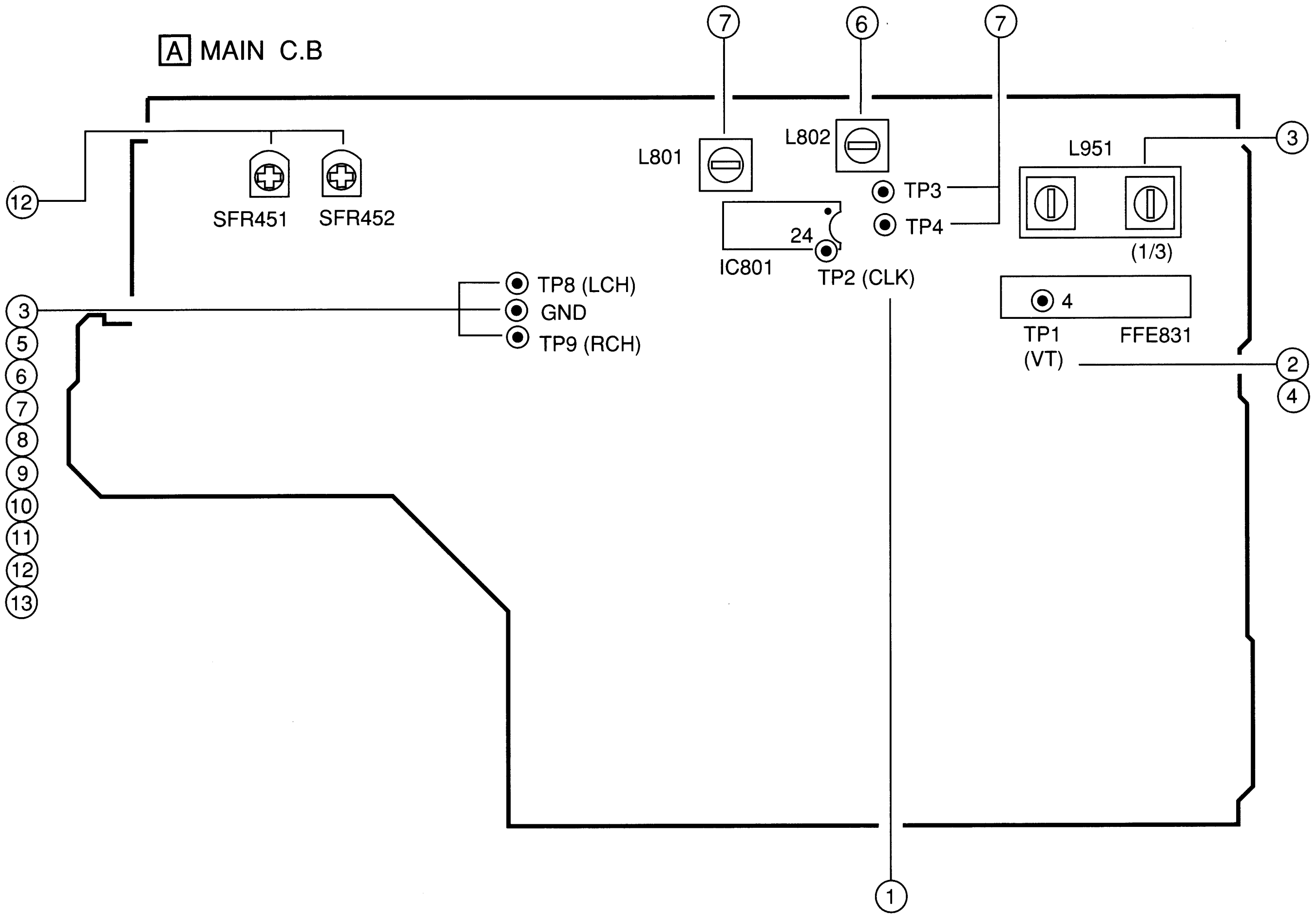


CNA001
CN001
C PT C·B
<LH ONLY>
PT001
PT,
AMA-6
LH
FROM A MAIN C.B 1/2
WH001
VSTBY
P-ON
FIL-2
FIL-1
GND (M)
VL (AC)
VL (AC)
VH (AC)
VH (AC)
9
8
7
6
5
4
3
2
1
16
15
14
13
12
11
10
2
TF
3
4
5
6
7
S001
SLIDE,
1-2-3 SWS2301
AC VOLTAGE
-120V
-220-230V
-240V
R53
100
Q12
KTC3199GR
R059
33k
Q11
DTC114ES
R
C016
3.3/50
RY001
RELAY,
12V-ALA2PF12
D44
1N4148
Q11, 12
RESET
D008 1N4148
D009 1N4148
D003 1N4148
D004 1N4148
C15
470/25
D005 1N4148
D006 1N4148
6
8
4
3
2
1
PT002 PT, SUB ANF-8
(H) KAMI
T002
T001
AC 120/220-230/
240V
50/60HZ

WIRING – 5 (DECK)


1
2
3
4
5
6
7
A
B
C
D
E
F
G
H
I
J
DECK1
EH
RPH
DECK2
PH
BLK
WHT
WHT
RED
WHT
RED
BLK
BLK
WHT
RED
BRN
GRY
WHT
BLK
TO CHASSIS GND
GRY
TO CHASSIS GND
BLK
WHT
BLK
WHT
RED
RED
WHT
BLK
WHT
BLK
RED
1 3 5 7 8
CON351
1 3
CON301
TO A MAIN C.B
CN351
TO A MAIN C.B
CN301
M1
(DECK MOTOR)
S5
(PLAY2)
S4
(PLAY1)
S3
(REC)
S2
(KEY2)
S1
(KEY1)
– + B A
YEL
PUL
BLU
BRN
WHT
GRY
PUL
BLU
GRN
YEL
ORG
RED
BRN
9 7 5 3 1
CON103
TO B FRONT C.B
CN701

ADJUSTMENT <TUNER / DECK / FRONT>



< TUNER SECTION >

1. Clock Frequency Check
   Settings : • Test point : TP2 (CLK)
   Method : Set to AM 1710kHz and check that the test point is 2160kHz ± 45Hz.

2. AM VT Check
   Settings : • Test point : TP1 (VT)
   Method : Set to AM 1710kHz and MW 530kHz and check that the test point is less than 8.5V (1710kHz) and more than 0.6V (530kHz).

3. AM Tracking Adjustment
   Settings : • Test point : TP8 (Lch), TP9 (Rch)
   • Adjustment location :
   L951 (1/3) 1000kHz
   Method : Set to AM 1000kHz and adjust L951 (1/3) so that the test point is max.

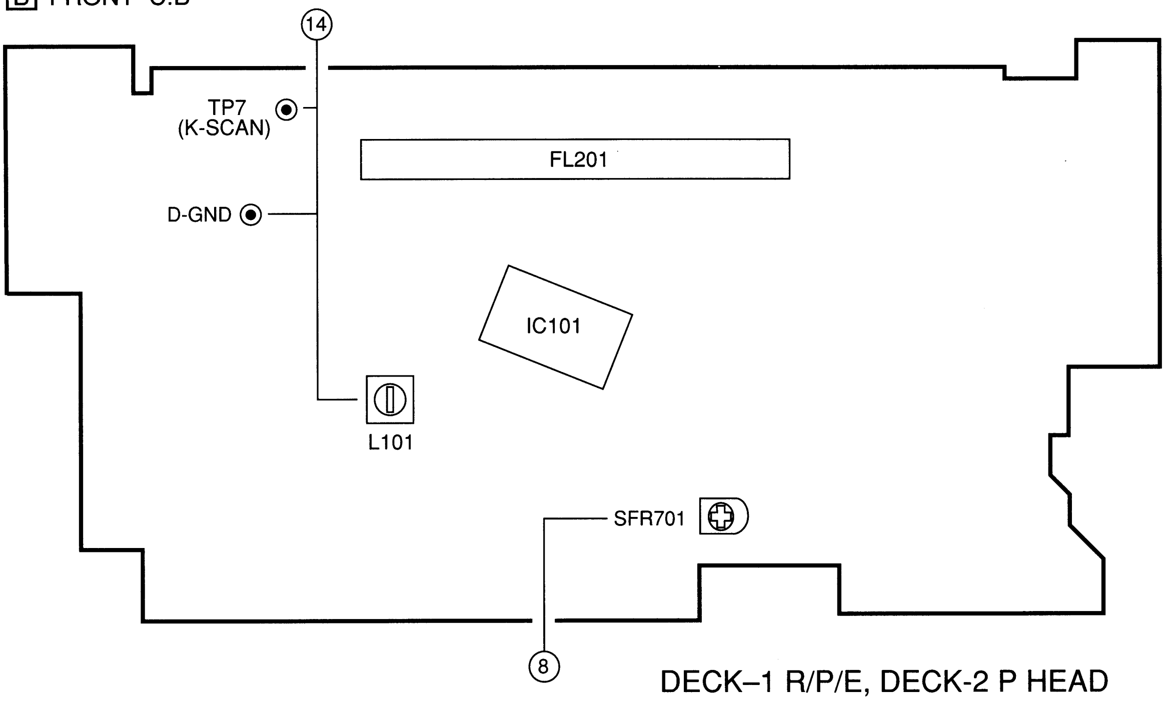
4. FM VT Check
   Settings : • Test point : TP1 (VT)
   Method : Set to FM 108.0MHz and check that the test point is less than 8.0V.
   Set to FM 87.5MHz and check that the test point is more than 0.5V.

5. FM Tracking Check
   Settings : • Test point : TP8 (Lch), TP9 (Rch)
   Method : Set to FM 98.0MHz and check that the test point is less than 9.0dBμV.

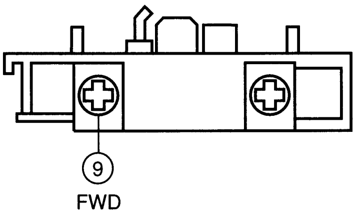
6. AM IF Adjustment
   Settings : • Test point : TP8 (Lch), TP9 (Rch)
   • Adjustment location :
   L802 .... 450kHz

7. DC Balance / Mono Distortion Adjustment
   Settings : • Test point : TP3, TP4 (DC Balance)
   TP8 (Lch), TP9 (Rch) (Distortion)
   • Adjustment location : L801
   • Input level : 60dBμV
   Method : Set to FM 98.0MHz and adjust L801 so that the voltage between TP3 and TP4 becomes 0V ± 0.04V. Next, check that the distortion is less than 1.3%

B FRONT C.B



DECK–1 R/P/E, DECK-2 P HEAD



< DECK SECTION >

8. Tape Speed Adjustment (DECK 1)
   Settings : • Test tape : TTA–100
   • Test point : TP8 (Lch), TP9 (Rch)
   • Adjustment location : SFR701
   Method : Play back the test tape and adjust SFR701 so that the frequency counter reads 3000Hz ± 5Hz.

9. Head Azimuth Adjustment (DECK 1, DECK 2)
   Settings : • Test tape : TTA–330
   • Test point : TP8 (Lch), TP9 (Rch)
   • Adjustment location : Head azimuth adjustment screw
   Method : Play back (FWD) the 8kHz signal of the test tape and adjust screw so that the output becomes maximum.

10. PB Frequency Response Check (DECK 1, DECK 2)
    Settings : • Test tape : TTA–330
    • Test point :TP8 (Lch), TP9 (Rch)
    Method : Play back the 315Hz and 8kHz signals of the test tape and check that the output ratio of the 8kHz signal with respect to that of the 315Hz signal is within 5dB.

11. PB Sensitivity Check (DECK 1, DECK 2)
    Settings : • Test tape : TTA–200
    • Test point : TP8 (Lch), TP9 (Rch)
    Method : Play back the test tape and check that the output level of the test point is 140mV ± 3dB.

12. REC/PB Frequency Response Adjustment (DECK 1)
    Settings : • Test tape : TTA–602
    • Test point : TP8 (Lch), TP9 (Rch)
    • Input signal : 1kHz / 8kHz (LINE IN)
    • Adjustment location : SFR451 (Lch)
    SFR452 (Rch)
    Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at the TP8, TP9 becomes -20VU (9~11mV). Record and play back the 1kHz and 8kHz signals and adjust SFRs so that the output of the 8kHz signals becomes 0dB ± 0.5dB with respect to that of the 1kHz signal.

13. REC/PB Sensitivity Check (DECK 1)
    Settings : • Test tape : TTA–602
    • Test point : TP8 (Lch), TP9 (Rch)
    • Input signal : 1kHz (LINE IN)
    Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at TP8, TP9 becomes 0VU (90~110mV). Record and play back the 1kHz signals and check that the output is 0dB ± 3.0dB.

< FRONT SECTION >

14. MICON OSC Adjustment
    Settings : • Test point : TP7 (K-SCAN) and D-GND
    • Adjustment location : L101
    Method : Pull out AC plug, then insert AC plug again with pressing of TUNER function key and POWER key. Adjust L101 so that the frequency across the test point is 58.3525Hz ± 0.058Hz or 17.1372ms ± 0.017ms.

IC DESCRIPTION

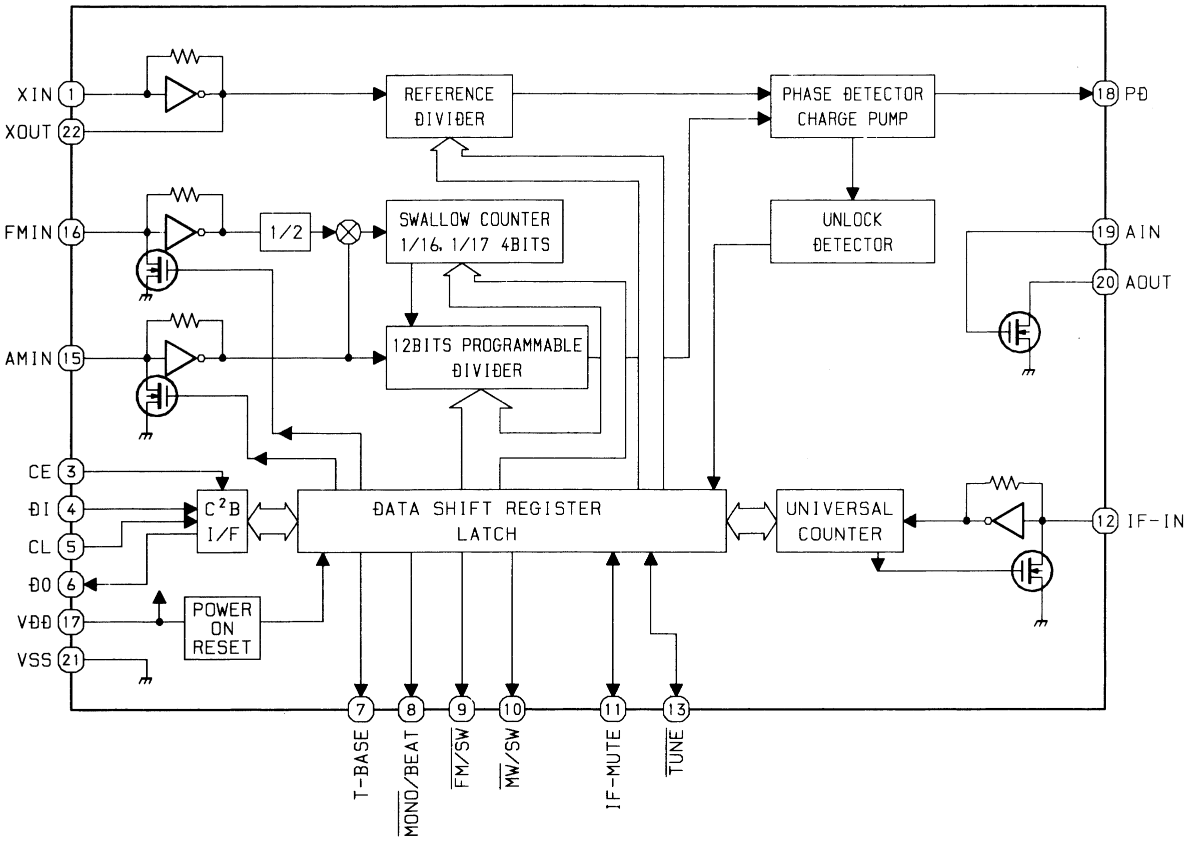
IC, M38B59MFH-E250FP

Pin No.	Pin Name	I/O	Description
1	I-SIG	I	RDS signal level A/D input. (Not used)
2	I-$\overline{\text{HOLD}}$	I	Hold voltage level A/D input.
3	I-CD-SW	I	CD mecha SW A/D input.
4	I-DISH	I	CD turn-table position check A/D input.
5	I-KEY2	I	KEY2 A/D input.
6	I-KEY1	I	KEY1 A/D input.
7	I-RDS-DATA/ O-DATA	I/O	RDS data input / DSP IC data (V-CD) output. (Not used)
8	O-MOTOR	O	Deck motor supply ON/OFF output.
9	I-RMC	I	System remote control signal input. ("L"=ACTIVE)
10	$\overline{\text{RESET}}$	I	System reset input. ("L"=RESET)
11	I-$\overline{\text{STEREO}}$	I	Tuner stereo input. ("L"=STEREO)
12	O-DSC/O-PLL DATA	O	Function IC control & PLL data output.
13	VSS	-	GND.
14,15	XIN, XOUT	I/O	4.19MHz system CLK input / output.
16	VCC	-	Power supply input.
17	O-PB1	O	Deck 1/2 switch output. ("L"=PLAYBACK DECK 1)
18	O-$\overline{\text{STBY}}$	O	Standby LED ON/OFF output. ("L"=ON)
19	O-$\overline{\text{RMT}}$	O	REC mute output. ("H"=MUTE)
20	O-$\overline{\text{BIAS}}$	O	Record bias ON/OFF output. ("L"=ON)
21	O-TU-ON	O	Tuner supply ON/OFF output. ("H"=ON)
22	O-CD-ON	O	CD supply ON/OFF output. ("H"= ON)
23	O-$\overline{\text{C.SHIFT}}$	O	MICON clock shift output. ("L"=SHIFT)
24	O-PLL-CLK	O	PLL IC CLK output.
25	I-TM-BASE	I	8 Hz time base input.
26	O-CD-CLOSE	O	CD door close output.
27	O-CD-OPEN	O	CD door open output.
28	VEE	-	Power supply input for FL display.
29	O-STB(DSP)	O	DSP IC strobe output. (Not used)
30	O-KSCAN	O	Initial key scan output.
31	O-PLL-CE	O	CD PLL IC chip enable output.
32	O-CD-LED	O	CD flash window LED output.
33~42	G10~G1	O	FL grid output (G10~G1).
43	P22	O	FL segment output (P22). (Not used)
44~58	P21~P7	O	FL segment output (P21~P7).
59	PHONO/P6	I/O	PHONO diode input / FL segment output (P6).
60	DEMO/P5	I/O	CASINO DEMO diode input (Not used) / FL segment output (P5).
61	NON-ECO/P4	I/O	ECO OFF diode input / FL segment output (P4).
62	I-TU3/P3	I/O	TU 3 diode input (Not used) / FL segment output (P3).
63	I-TU2/P2	I/O	TU 2 diode input (Not used) / FL segment output (P2).
64	I-TU1/P1	I/O	TU 1 diode input (Not used) / FL segment output (P1).

Pin No.	Pin Name	I/O	Description
65	O-DISH-R	O	CD turn-table reverse turn output.
66	O-DISH-F	O	CD turn-table forward turn output.
67	I-SUBQ	I	Sub code-Q data input.
68	O-CD-CE	O	CD DSP chip enable output.
69	I-WRQ	I	CD WRQ input.
70	O-CLK (CD)	O	CD control clock output .
71	O-DATA (CD)	O	CD control data output.
72	I-$\overline{\text{TUNE}}$/IFC	I	Tuner SD input / IF count input.
73	AVSS	-	GND.
74	VREF	-	Reference voltage.
75	I-DRF	I	CD DRF input.
76	I-RDS-CLK	I	RDS clock input. (Not used)
77	I-BLANK SKIP	I	Signal level AD input for CD blank skip only. (Not used)
78	O-POWER	O	SYSTEM Power ON/OFF output. ("H"=ON)
79	I-RE-VOL	I	Rotary encoder A/D input.
80	I-TP-SW	I	Deck mecha SW A/D input.

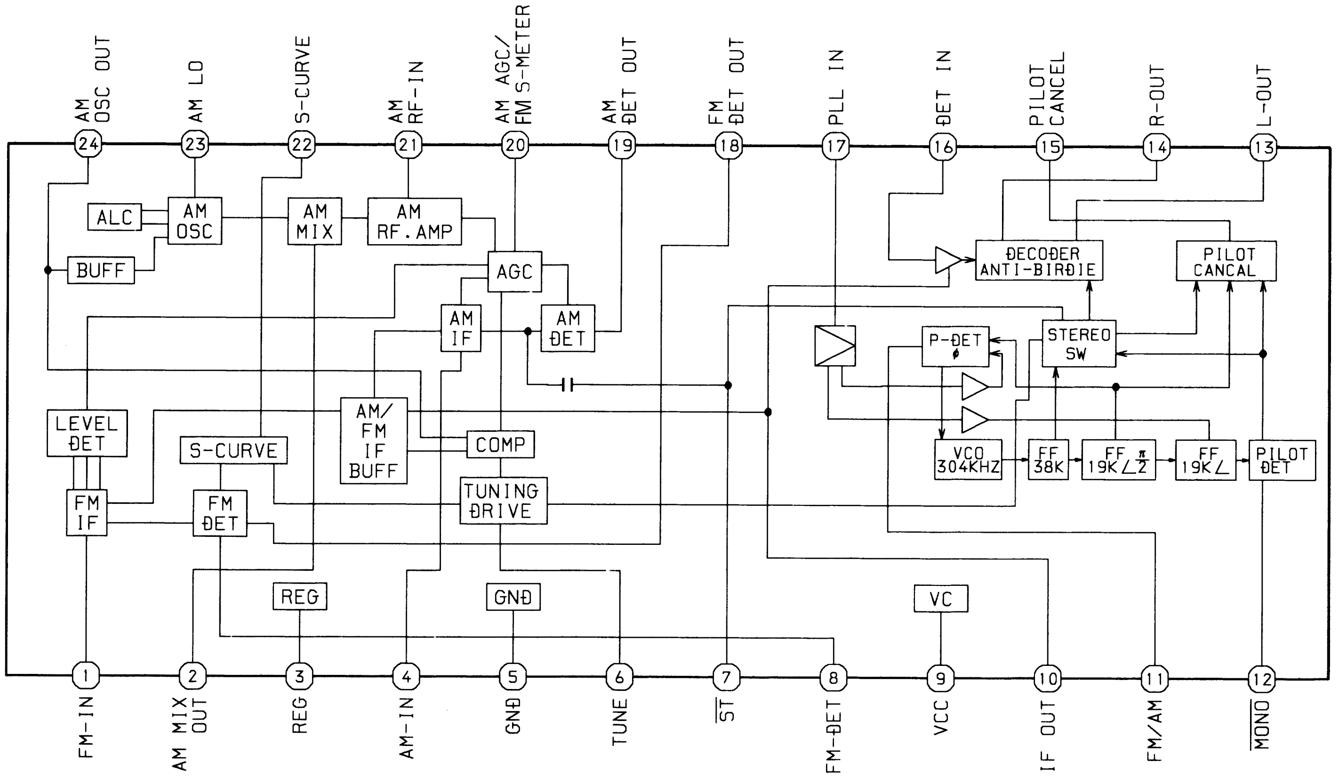
IC BLOCK DIAGRAM – 2

IC, LC72131D



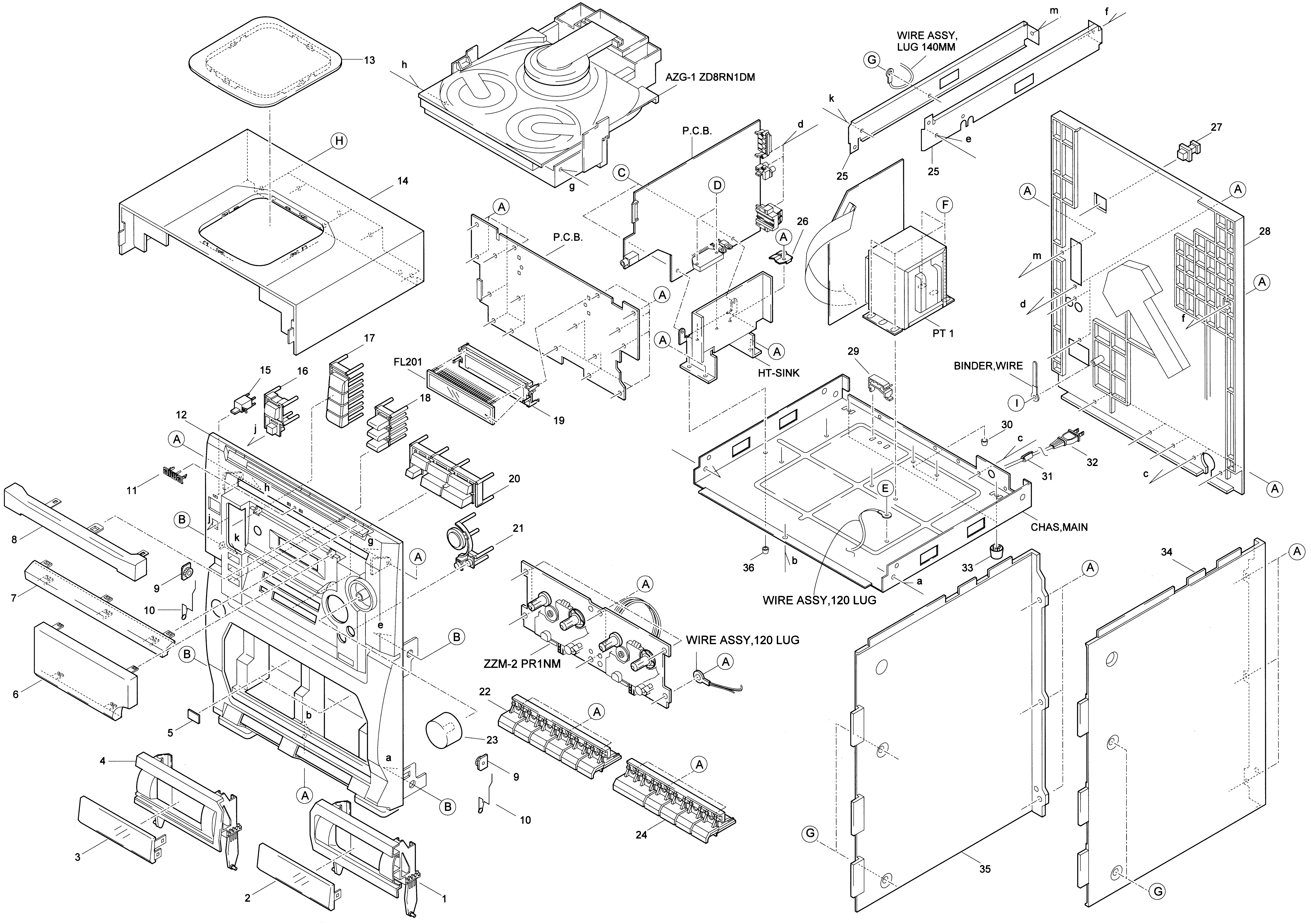
XIN 1
XOUT 22
FMIN 16
AMIN 15
CE 3
DI 4
CL 5
DO 6
VDD 17
VSS 21
REFERENCE DIVIDER
1/2
SWALLOW COUNTER 1/16, 1/17 4BITS
12BITS PROGRAMMABLE DIVIDER
PHASE DETECTOR CHARGE PUMP
UNLOCK DETECTOR
C²B I/F
DATA SHIFT REGISTER LATCH
UNIVERSAL COUNTER
POWER ON RESET
18 PD
19 AIN
20 AOUT
12 IF-IN
7 T-BASE
8 MONO/BEAT
9 FM/SW
10 MW/SW
11 IF-MUTE
13 TUNE

IC, LA1843



24 AM OSC OUT
23 AM LO
22 S-CURVE
21 AM RF-IN
20 AM AGC/ FM S-METER
19 AM DET OUT
18 FM DET OUT
17 PLL IN
16 DET IN
15 PILOT CANCEL
14 R-OUT
13 L-OUT
ALC
AM OSC
AM MIX
AM RF.AMP
BUFF
AGC
AM IF
AM DET
LEVEL DET
S-CURVE
AM/ FM IF BUFF
COMP
TUNING DRIVE
FM IF
FM DET
REG
GND
VC
DECODER ANTI-BIRDIE
PILOT CANCAL
STEREO SW
P-DET φ
VCO 304KHZ
FF 38K
FF 19K∠π/2
FF 19K∠
PILOT DET
1 FM-IN
2 AM MIX OUT
3 REG
4 AM-IN
5 GND
6 TUNE
7 ST
8 FM-DET
9 VCC
10 IF OUT
11 FM/AM
12 MONO

MECHANICAL EXPLODED VIEW 1 / 1


13
14
H
h
AZG-1 ZD8RN1DM
g
WIRE ASSY,
LUG 140MM
G
m
f
k
e
25
25
27
P.C.B.
d
C
D
A
P.C.B.
26
F
28
PT 1
HT-SINK
A
17
FL201
15
16
18
19
29
BINDER,WIRE
I
12
j
11
8
B
9
7
10
6
5
4
3
2
1
20
21
30
c
32
31
CHAS,MAIN
E
36
b
33
a
34
WIRE ASSY,120 LUG
WIRE ASSY,120 LUG
ZZM-2 PR1NM
22
23
24
35

MECHANICAL PARTS LIST 1 / 1

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-MA6-007-010		BOX,CASS R
2	8A-MA6-017-010		WINDOW,CASS R
3	8A-MA6-016-010		WINDOW,CASS L
4	8A-MA6-006-010		BOX,CASS L
5	81-532-080-010		LABEL, CASS. COMPT
6	8A-MA6-015-010		WINDOW,DISP
7	8A-MA6-014-010		WINDOW,CD
8	8A-MA6-011-010		PANEL,CD
9	86-NFZ-231-010		DMPR,70
10	82-NF7-218-010		SPR-T,CASS
11	87-B00-002-010		BADGE,AIWA 30ABS SIL
12	8A-MA6-003-010		CABI,FR LH<LH>
12	8A-MA6-001-010		CABI,FR U<U>
13	8A-MA3-057-010		WINDOW,TOP<LH>
13	8A-MA3-058-010		WINDOW,TOP U<U>
14	8A-MA6-018-010		CABI,TOP<LH>
14	8A-MA6-019-010		CABI,TOP U<U>
15	8A-MA6-032-010		REFLECTOR,POWER
16	8A-MA6-031-010		KEY,POWER
17	8A-MA6-033-010		KEY,FUNCTION
18	8A-MA6-034-010		KEY,GEQ
19	82-NF7-210-110		GUIDE,FL
20	8A-MA6-035-010		KEY,PLAY
21	8A-MA6-036-010		KEY,CD
22	8A-MA6-041-010		KEY,CASS L
23	8A-MA6-039-010		KNOB,RTRY VOL
24	8A-MA6-042-010		KEY,CASS R
25	88-MA1-208-110		JOINT,CABI
26	86-NF6-211-010		HLDR,IC T1.6
27	84-ZG1-245-210		CAP,OPTICAL

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
28	8A-MA6-024-010		CABI,REAR LH<LH>
28	8A-MA6-021-010		CABI,REAR U<U>
29	87-NF4-221-010		HLDR,CABLE
30	8Z-NB8-240-010		COVER,PL
31	87-085-185-010		BUSHING, AC CORD (E)<LH>
31	87-A91-422-010		BUSHING,AC CORD(U)<U>
⚠ 32	87-A80-148-010		AC CORD ASSY,E BLK<LH>
⚠ 32	87-A80-149-010		AC CORD ASSY,U BLK<U>
33	87-MA3-062-010		FOOT, H17
34	8A-MA5-046-010		PANEL,SIDE R 5<LH>
34	8A-MA5-048-010		PANEL,SIDE R 5 (U)<U>
35	8A-MA5-045-010		PANEL,SIDE L 5<LH>
35	8A-MA5-047-010		PANEL,SIDE L 5 (U)<U>
36	8Z-NB8-254-010		COVER.PLM3
A	87-067-703-010		TAPPING SCREW, BVT2+3-10
B	87-591-095-410		TAPPING SCREW, QIT+3-8 (GLD)
C	87-NF4-224-010		S-SCREW, IT3B+3-8CU
D	87-067-581-010		BVT2+3-15 W/O SLOT
E	87-067-688-010		BVT+3-6
F	87-067-586-010		TAPPING SCREW, BVT2+4-8
G	87-067-641-010		UTT2+3-8(W/O SLOT)BL
H	87-067-758-010		BVT2+3-12 W/O SLOT
I	87-067-579-010		TAPPING SCREW, BVT2+3-8

COLOR NAME TABLE

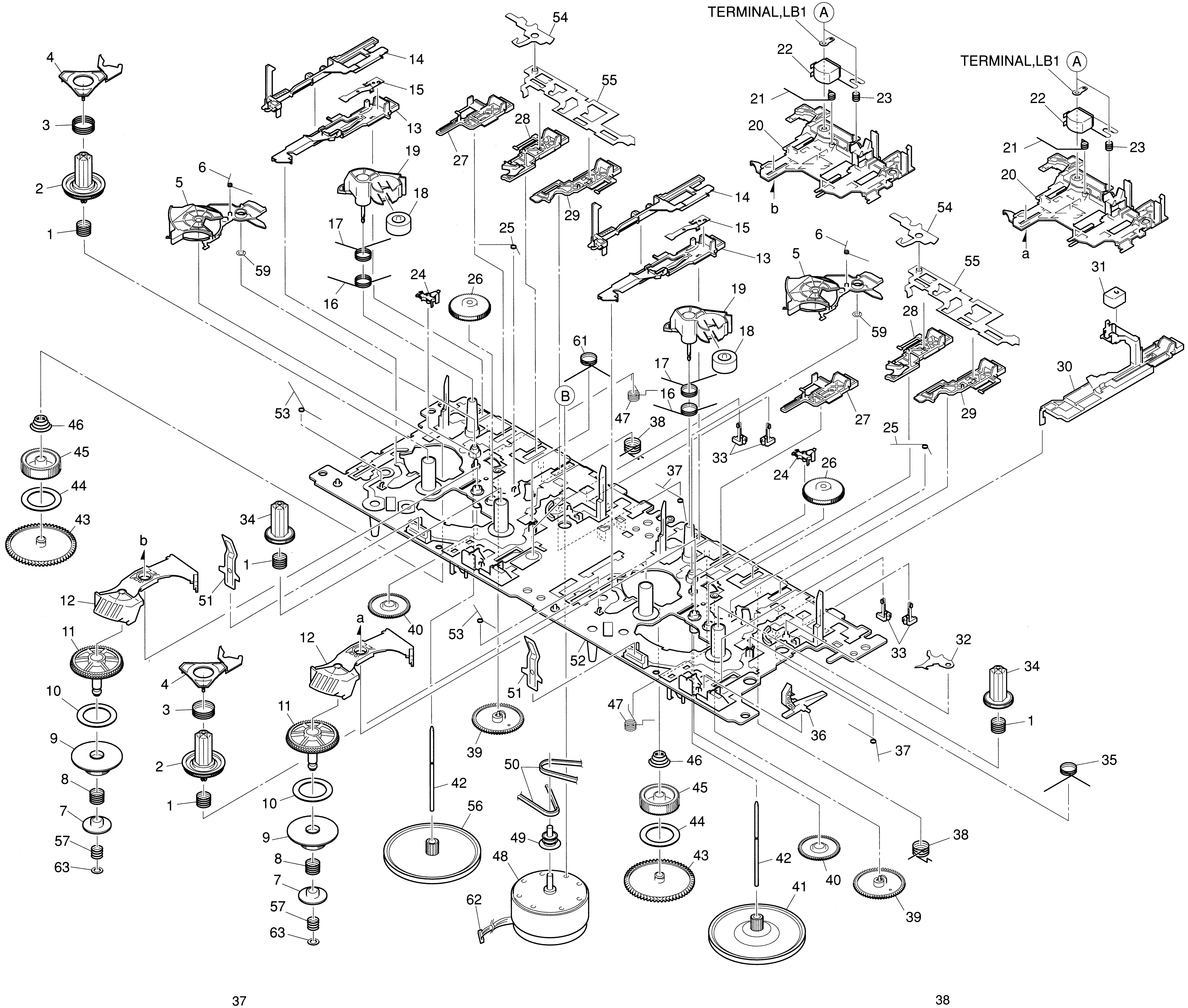
Basic color symbol	Color	Basic color symbol	Color	Basic color symbol	Color
B	Black	C	Cream	D	Orange
G	Green	H	Gray	L	Blue
LT	Transparent Blue	N	Gold	P	Pink
R	Red	S	Sliver	ST	Titan Silver
T	Brown	V	Violet	W	White
WT	Transparent White	Y	Yellow	YT	Transparent Yellow
LM	Metallic Blue	LL	Light Blue	GT	Transparent Green
LD	Dark Blue	DT	Transparent Orange	GM	Metallic Green
YM	Metallic Yellow				

TAPE MECHANISM PARTS LIST 1 / 1

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8Z-ZM1-254-210		SPR-C,REEL R
2	8Z-ZM1-225-110		GEAR,REEL R
3	8Z-ZM1-253-110		SPR-C,AUTO SENSOR
4	8Z-ZM1-217-110		LEVER,AUTO SENSOR
5	8Z-ZM1-212-110		LEVER,T-UP
6	8Z-ZM1-245-010		SPR-T,AUTO
7	8Z-ZM1-236-010		CLR,SLIP FF/REW
8	8Z-ZM1-252-010		SPR-C,FF/REW
9	8Z-ZM1-230-010		GEAR,SLIP FF/REW A
10	8Z-ZM1-269-010		FELT,FF/REW 2
11	8Z-ZM1-238-110		GEAR,SLIP FF/REW B 2
12	8Z-ZM1-237-010		LEVER,FF/REW 2
13	8Z-ZM1-209-210		LEVER,PAUSE
14	8Z-ZM1-218-110		LEVER,E-LOCK H
15	8Z-ZM1-256-010		SPR-P,PAUSE
16	8Z-ZM1-244-010		SPR-T,T-UP
17	8Z-ZM1-247-210		SPR-T,PINCH
18	8Z-ZM1-261-110		ROLLER ASSY,PINCH
19	8Z-ZM1-221-010		LEVER,PINCH
20	8Z-ZM1-205-210		LEVER,PLAY
21	8Z-ZM1-248-110		SPR-T,BRG
22	87-A90-403-110		HEAD,RPH MS15R
23	84-ZM2-227-310		SPR-C,AZIMUTH
24	8Z-ZM1-216-010		LEVER,AUTO
25	8Z-ZM1-246-010		SPR-T,AUTO 2
26	8Z-ZM2-214-010		GEAR,IDL REW ZZM-2
27	8Z-ZM2-212-010		LEVER,STOP ZZM-2
28	8Z-ZM1-207-010		LEVER,FF
29	8Z-ZM1-206-010		LEVER,REW
30	8Z-ZM1-210-010		LEVER,REC
31	87-A90-404-010		HEAD,EH LE15B
32	8Z-ZM2-218-010		LEVER,REC LOCK ZZM-2
33	87-A91-492-010		SW,LEAF MSW18560
34	8Z-ZM1-226-010		GEAR,REEL L
35	8Z-ZM1-241-010		SPR-T,PLAY
36	8Z-ZM1-220-110		LEVER,REC SENSOR
37	8Z-ZM1-249-010		SPR-T,FR
38	8Z-ZM1-242-110		SPR-T,FF/REW
39	8Z-ZM1-229-010		GEAR,CAM
40	8Z-ZM1-232-010		GEAR,IDL FF/REW
41	8Z-ZM1-234-010		FLY-WHL,ZZM-1
42	8Z-ZM1-267-010		SHAFT,CAPSTAN 2
43	8Z-ZM1-228-010		GEAR,SLIP T-UP B
44	8Z-ZM1-265-010		FELT,T-UP
45	8Z-ZM1-227-010		GEAR,SLIP T-UP A
46	8Z-ZM1-251-110		SPR-C,T-UP SLIP
47	8Z-ZM1-243-210		SPR-T,STOP/PAUSE
48	87-A91-532-010		MOT,MS15U2LW1A
49	8Z-ZM1-235-010		PULLEY,MOT
50	8Z-ZM2-216-010		BELT,MAIN M
51	8Z-ZM1-260-010		SPR-P,CASETTE
52	8Z-ZM2-201-010		CHAS ASSY,ZZM-2
53	8Z-ZM1-255-110		SPR-T,E-LOCK
54	8Z-ZM2-219-010		LEVER,E-OPEN ZZM-2
55	8Z-ZM1-214-110		LEVER,LOCK
56	8Z-ZM2-211-010		FLY-WHL,ZZM-2
57	8Z-ZM1-257-110		SPR-C,F/R
59	80-ZM6-243-010		SH 1.75-3.6-0.5 SLT
60	87-A91-494-010		SW,LEAF MSW17820
61	8Z-ZM1-241-010		SPR-T,PLAY
62	8Z-ZM2-601-010		CONN ASSY,9P ZZM-2
63	8Z-ZM1-275-010		W-L,1.47-4-0.25
A	84-ZM2-242-010		S-SCREW,AZ1-2-6.4
B	8Z-ZM2-220-110		V+2.6 ZZM-2

TAPE MECHANISM EXPLODED VIEW 1 / 1


TERMINAL,LB1 Ⓐ
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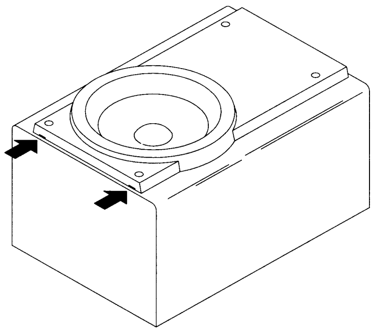
SPEAKER DISASSEMBLY INSTRUCTIONS

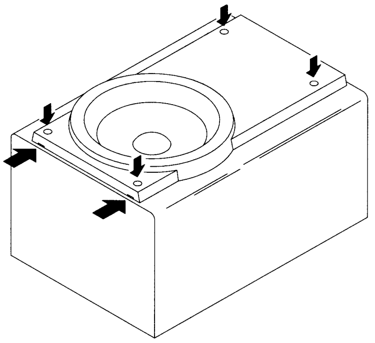
Type.1

Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Remove the screws of each speaker unit and then remove the speaker units.



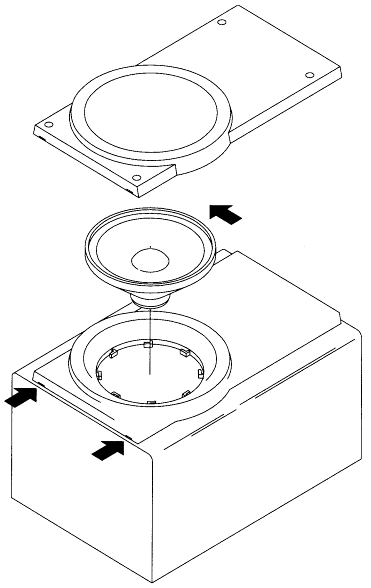
Type.2

Remove the grill frame and four pieces of rubber caps by pulling out with a flat-bladed screwdriver. Remove the screws from hole where installed rubber caps. Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Remove the screws of each speaker unit and then remove the speaker units.

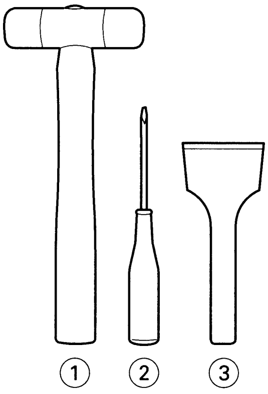


Type.3

Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Turn the speaker unit to counterclockwise direction while inserting a flat-bladed screwdriver into one of the hollows around speaker unit, and then remove the speaker unit. After replacing the speaker unit, install it turning to clockwise direction untill "click" sound comes out.



Type.4



TOOLS

① Plastic head hammer
② (⊖) flat head screwdriver
③ Cut chisel

How to Remove the PANEL, FR

1. Insert the (⊖) flat head screwdriver tip into the gap between the PANEL, FR and the PANEL, SPKR. Tap the head of the (⊖) flat head screwdriver with the plastic hammer head, and create the clearance as shown in Fig-1.

2. Insert the cut chisel in the clearance, and tap the head of the cut chisel with plastic hammer as shown in Fig-2, to remove the PANEL, FR.

3. Place the speaker horizontally. Tap head of the cut chisel with plastic hammer as shown in Fig-3, and remove the PANEL, FR completely.

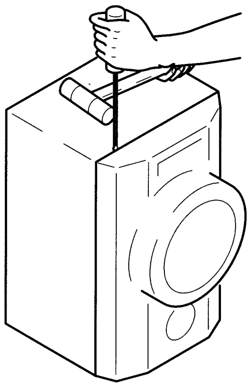


Fig-1

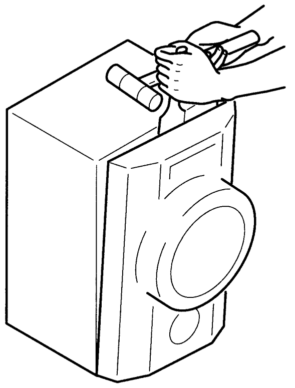


Fig-2

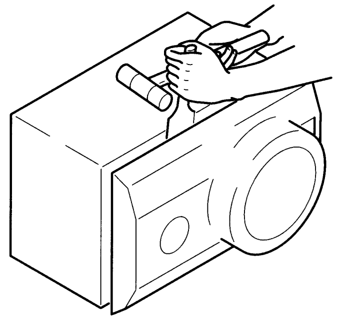


Fig-3

How to Attach the PANEL, FR

Attach the PANEL, FR to the PANEL, SPKR. Tap the four corners of the PANEL, FR with the plastic hammer to fit the PANEL, FR into the PANEL, SPKR completely.

SX-ZL100 (YUSC, YSC), SX-ZL200 (YLSCC, YLSC)
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-MSG-002-010		GRILLE,FRAME ASSY
2	83-MSE-605-010		SPKR, CERAMIC
3	88-MSS-603-010		SPKR, W 130
4	88-NS5-605-010		SPKR, T 60

ACCESSORIES / PACKAGE LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-MA6-902-010		IB,LH(ESP)M<LH>
1	8A-MA6-903-010		IB,U(ESF)M<U>
2	87-A90-030-010		ANT,LOOP AM-NC C
3	87-043-115-010		ANT,FEEDER FM
4	87-A91-017-010		PLUG,CONVERSION JT-0476<LH>
5	8Z-NF9-701-210		RC UNIT,ZAS02

REFERENCE NAME LIST

ELECTRICAL SECTION

DESCRIPTION	REFERENCE NAME
ANT	ANTENNAS
C-	CHIP
C-CAP	CAP, CHIP
C-CAP TN	CAP, CHIP TANTALUM
C-COIL	COIL, CHIP
C-DI	DIODE, CHIP
C-DIODE	DIODE, CHIP
C-FET	FET, CHIP
C-FOTR	FILTER, CHIP
C-JACK	JACK, CHIP
C-LED	LED, CHIP
C-RES	RES, CHIP
C-SFR	SFR, CHIP
C-SLIDE SW	SLIDE SWITCH, CHIP
C-SW	SWITCH, CHIP
C-TR	TRANSISTOR, CHIP
C-VR	VOLUME, CHIP
C-ZENER	ZENER, CHIP
CAP, CER	CAP, CERA-SOL
CAP, E	CAP, ELECT
CAP, M/F	CAP, FILM
CAP, TC	CAP, CERA-SOL
CAP, TC-U	CAP, CERA-SOL SS
CAP, TN	CAP, TANTALUM
CERA FIL	FILTER, CERAMIC
CF	FILTER, CERAMIC
DL	DELAY LINE
E/CAP	CAP, ELECT
FILT	FILTER
FLTR	FILTER
FUSE RES	RES, FUSE
MOT	MOTOR
P-DIODE	PHOTO DIODE
P-SNSR	PHOTO SENSER
P-TR	PHOTO TRANSISTOR
POLY VARI	VARIABLE CAPACITOR
PPCAP	CAP, PP
PT	POWER TRANSFORMER
PTR, RES	PTR, MELF
RC	REMOTE CONTROLLER
RES NF	RES, NON-FLAMMABLE
RESO	RESONATOR
SHLD	SHIELD
SOL	SOLENOID
SPKR	SPEAKER
SW, LVR	SWITCH, LEVER
SW, RTRY	SWITCH, ROTARY
SW, SL	SWITCH, SLIDE
TC CAP	CAP, CERA-SOL
THMS	THERMISTOR
TR	TRANSISTOR
TRIMER	CAP, TRIMMER
TUN-CAP	VARIABLE CAPACITOR
VIB, CER	RESONATOR, CERAMIC
VIB, XTAL	RESONATOR, CRYSTAL
VR	VOLUME
ZENER	DIODE, ZENER

MECHANICAL SECTION

DESCRIPTION	REFERENCE NAME
ADHESHIVE	SHEET ADHESHIVE
AZ	AZIMUTH
BAR-ANT	BAR-ANTENNA
BAT	BATTERY
BATT	BATTERY
BRG	BEARING
BTN	BUTTON
CAB	CABINET
CASS	CASSETTE
CHAS	CHASSIS
CLR	COLLAR
CONT	CONTROL
CRSR	CURSOR
CU	CUSHION
CUSH	CUSHION
DIR	DIRECTION
DUBB	DUBBING
FL	FRONT LOADING
FLY-WHL	FLYWHEEL
FR	FRONT
FUN	FUNCTION
G-CU	G-CUSHION
HDL	HANDOL
HIMERON	CLOTH
HINGE, BAT	HINGE, BATTERY
HLDR	HOLDER
HT-SINK	HEAT SINK
IB	INSTRUCTION BOOKLET
IDLE	IDLER
IND, L-R	INDICATOR, L-R
KEY, CONT	KEY, CONTROL
KEY, PRGM	KEY, PROGRAM
KNOB, SL	KNOB, SLIDE
LBL	LABEL
LID, BATT	LID, BATTERY
LID, CASS	LID, CASSETTE
LVR	LEVER
P-SP	P-SPRING
PANEL, CONT	PANEL, CONTROL
PANEL, FR	PANEL, FRONT
PRGM	PROGRAM
PULLY, LOAD MO	PULLY, LOAD MOTOR
RBN	RIBBON
S-	SPECIAL
SEG	SEGMENT
SH	SHEET
SHLD-SH	SHIELD-SHEET
SL	SLIDE
SP	SPRING
SP-SCREW	SPECIAL-SCREW
SPACER, BAT	SPACER, BATTERY
SPR	SPRING
SPR-P	P-SPRING
SPR-PC-PUSH	P-SPRING, C-PUSH
T-SP	T-SPRING
TERM	TERMINAL
TRIG	TRIGGER
TUN	TUNING
VOL	VOLUME
W	WASHER
WHL	WHEEL
WORM-WHL	WORM-WHEEL

サービス技術ニュース	
番号	連絡内容
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アイワ株式会社
AIWA CO.,LTD.

9301978, 9630472, 02514

Tokyo Japa

〒110-8710 東京都台東区池之端1-2-11 ☎03（3827）3111（代表）

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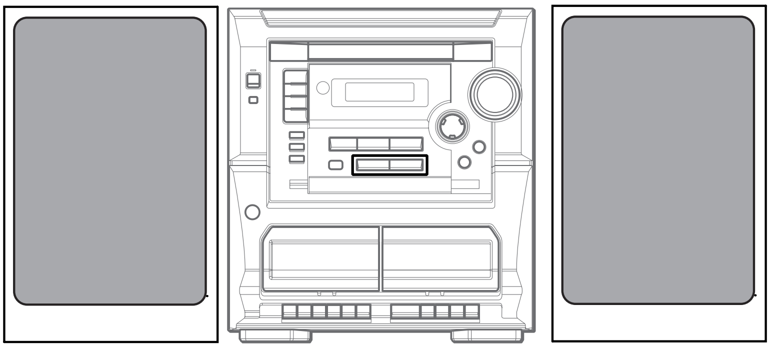
SERVICE

Z-L100 EZ,K



SERVICE MANUAL

COMPACT DISC STEREO
CASSETTE RECEIVER

BASIC TAPE MECHANISM : ZZM-2 PR1NM
BASIC CD MECHANISM : AZG-1 ZD8RN1DM

SYSTEM	CD CASSEIVER	SPEAKER	STEREO TURNTABLE	REMOTE CONTROLLER
Z-L100	CX-ZL100 (TYPE : EZ)	SX-ZL100	-	RC-ZAS02
	CX-ZL100 (TYPE : K)		PX-E860	

- This Service Manual is the “Revision Publishing” and replaces “Simple Manual” Z-L100 (EZ,K), (S/M Code No. 09-002-422-5T2).
- If requiring information about the CD mechanism, see Service Manual of AZG-1, (S/M Code No. 09-001-335-3N6).
- If requiring information about the Stereo Turntable, see Service Manual of PX-E860 (K), (S/M Code No. 09-993-322-0R4).

REVISION
DATA

aiwa

S/M Code No. 09-004-422-5R2

SPECIFICATIONS

<FM tuner section>

Tuning range	87.5 MHz to 108 MHz
Usable sensitivity (IHF)	13.2 dBf
Antenna terminals	75 ohms (unbalanced)

<MW tuner section>

Tuning range	530 kHz to 1710 kHz (10 kHz step) 531 kHz to 1602 kHz (9 kHz step)
Usable sensitivity	350 µV/m
Antenna	Loop antenna

<LW tuner section>

Tuning range	144 kHz to 290 kHz
Usable sensitivity	1400 µV/m
Antenna	Loop antenna

<Amplifier section>

Power output	Rated : 30 W + 30 W (1 kHz, T.H.D. 1 %, 6 ohms) Reference : 37 W + 37 W (6 ohms, T.H.D. 10 %, 1 kHz) DIN MUSIC POWER : 54 W + 54 W<EZ>
Total harmonic distortion	0.1 % (6 W, 1 kHz, 6 ohms, DIN AUDIO)
Inputs	VIDEO / AUX / PHONO IN : 500 mV
Outputs	CD DIGITAL OUT (OPTICAL) SPEAKERS : accept speakers of 6 ohms or more PHONES (stereo jack): accepts headphones of 32 ohms or more

<Compact disc player section>

Laser	Semiconductor laser (λ = 780 nm)
D-A converter	1 bit dual
Signal-to-noise ratio	85 dB (1 kHz, 0 dB)
Harmonic distortion	0.05 % (1 kHz, 0 dB)
Wow and flutter	Unmeasurable

<Cassette deck section>

Track format	4 tracks, 2 channels stereo
Frequency response	50 Hz – 16000 Hz
Recording system	AC bias
Heads	Deck 1 : Recording / Playback / erase head x 1 Deck 2 : Playback head x 1

<Speaker system SX–ZL100>

Cabinet type	3 way, bass reflex
Speakers	Woofer : 130 mm ($5^{1}/_{8}$ in.) cone type Tweeter: 60 mm ($2^{3}/_{8}$ in.) cone type Super tweeter: 20 mm ($^{13}/_{16}$ in.) ceramic type
Impedance	6 ohms
Output sound pressure level	87 dB/W/m
Dimensions (W x H x D)	260 x 496 x 220 mm ($10^{1}/_{4}$ x $19^{5}/_{8}$ x $8^{3}/_{4}$ in.)
Weight	3.7 kg (8 lbs 3 oz.)

<General>

Power requirements	230 V AC, 50 Hz
Power consumption	70 W
Dimensions of main unit (W x H x D)	360 x 393 x 342 mm ($14^{1}/_{4}$ x $15^{1}/_{2}$ x $13^{1}/_{2}$ in.)
Weight of main unit	7.7 kg (17 lbs)

Standby power consumption

If the power-economizing mode is OFF : 17 W
If the power-economizing mode is AUTO or ON : 0.9 W

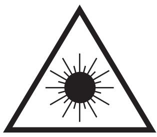
- Design and specifications are subject to change without notice.

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.



- Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- Advarsel: Usynlig laserståling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for ståling.

VAROITUS!

Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saataa altistaa käyt-täjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

VARNING!

Om apparaten används på annat sätt än vad som specificeras i denna bruksanvising, kan användaren utsättas för osynling laserstrålning, som överskrider gränsen för laserklass 1.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herin may result in hazardous radiation exposure.

ATTENTION

L'utillisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

ADVARSEL

Usynlig laserståling ved åbning, når sikkerhedsafbrydereer ude af funktion. Undgå udsættelse for ståling.

This Compact Disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the rear exterior.

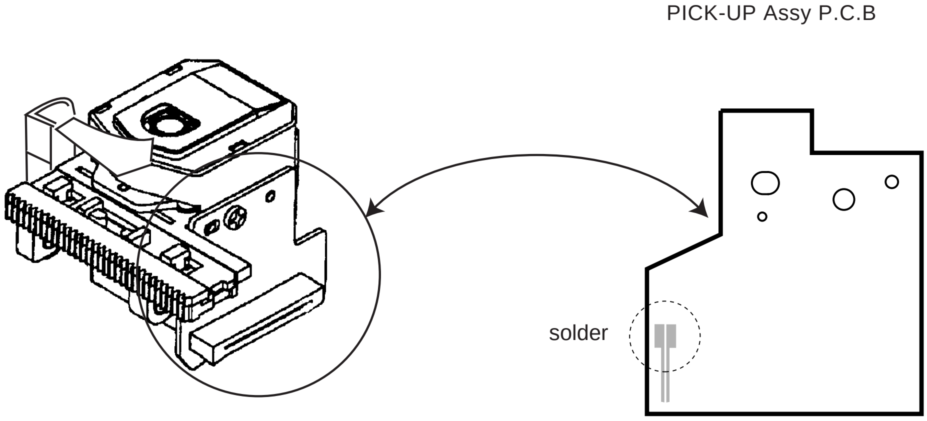
CLASS 1	LASER PRODUCT
KLASSE 1	LASER PRODUKT
LUOKAN 1	LASER LAITE
KLASS 1	LASER APPARAT

Precaution to replace Optical block

(KSM-880CAB)

Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use care the clothes do not touch the diode.

1) After the connection, remove solder shown in right figure.



NOTE ON BEFORE STARTING REPAIR

1. Forced discharge of electrolytic capacitor of power supply block

When repair is going to be attempted in the set that uses relay circuit in the power supply block, electric potential is kept charged across the electrolytic capacitors (C101, 102) even though AC power cord is removed. If repair is attempted in this condition, secondary defect can occur.

In order to prevent the secondary trouble, perform the following measures before starting repair work.

Discharge procedure

1 Remove the AC power cord.
2 Connect a discharging resistor at an end of lead wire that has clips at both ends. Connect the other end of the lead wire to metal chassis.
3 Contact the other end of the discharging resistor to the positive (+) side (+VH) of C101. (For two seconds)
4 Contact the same end of the discharging resistor as step **3** to the negative (-) side (-VH) of C102 in the same way. (For two seconds)
5 Check that voltage across C101 and C102 has decreased to 1 V or less using a multimeter or an oscilloscope.

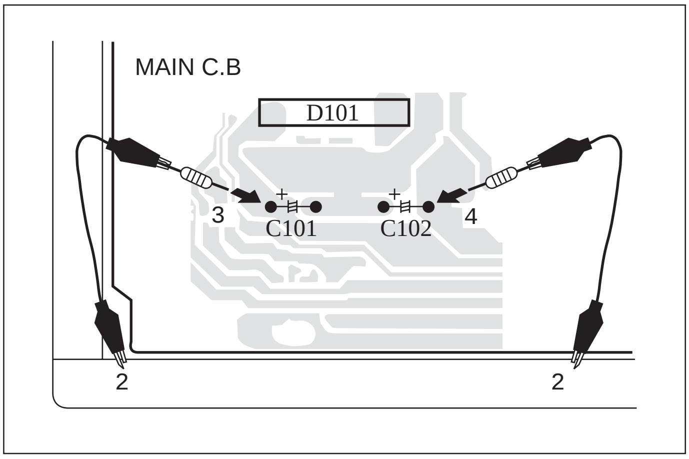


Fig-1

Select a discharging resistor referring to the following table.

Charging voltage (V) (C101, 102)	Discharging resistor (Ω)	Rated power (W)	Parts number
25-48	100	3	87-A00-247-090
49-140	220	5	87-A00-232-090

Note: The reference numbers (C101, C102) of the electrolytic capacitors can change depending on the models. Be sure to check the reference numbers of the charging capacitors on schematic diagram before starting the discharging work.

2. Check items before exchanging the MICROCOMPUTER

Be sure to check the following items before exchanging the MICROCOMPUTER. Exchange the MICROCOMPUTER after confirming that the MICROCOMPUTER is surely defective.

2-1. Regarding the HOLD terminal of the MICROCOMPUTER

When the HOLD terminal (INPUT) of the MICROCOMPUTER is “H”, the MICROCOMPUTER is judged to be operating correctly. When this terminal is “L”, the main power cannot be turned on. Therefore, be sure to check the terminal voltage of the HOLD terminal before exchange.

When the MICROCOMPUTER is not defective, the HOLD terminal can also go “L” when the POWER AMPLIFIER has any abnormalities that triggers the abnormality detection circuit on the MAIN C. B. that sets the HOLD terminal to “L”.

- Good or no good judgement of the MICROCOMPUTER

1 Turn on the AC main power.
2 Confirm that the main power is turned on and the HOLD terminal of the MICROCOMPUTER keeps the “H” level or not.
3 When the HOLD terminal is “L” level, the abnormality detection circuit is judged to be working correctly and the MICROCOMPUTER is judged to be good.

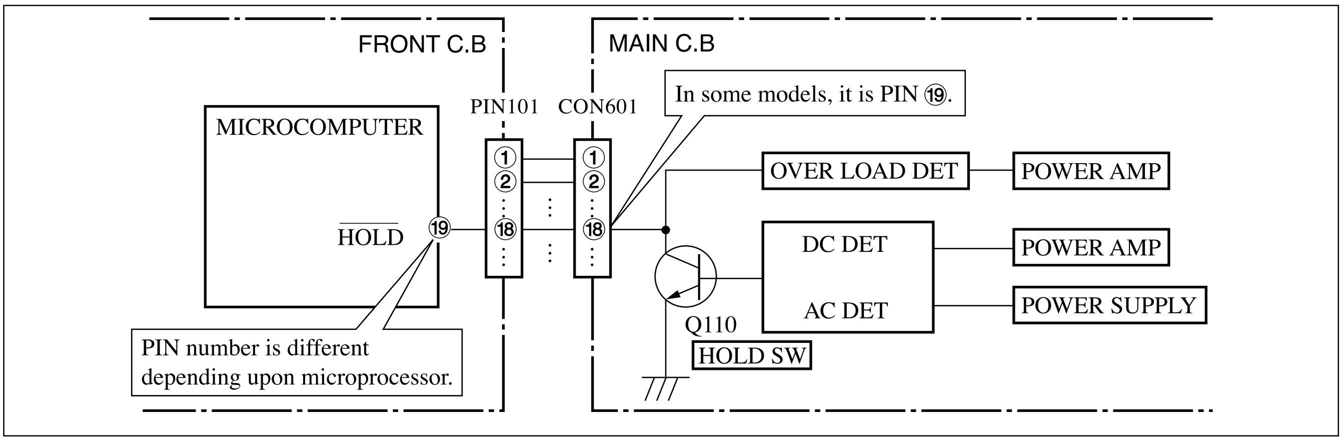


Fig-2-1

In such a case, check also if the POWER AMPLIFIER circuit or power supply circuit has any abnormalities or not.

2-2. Regarding reset

There are cases that the machine does not work correctly because the MICROCOMPUTER is not reset even though the AC power cord is re-inserted, or the software reset (pressing the STOP key + POWER key) is performed.

When the above described phenomenon occurs, it can lead to wrong judgement as if the MICROCOMPUTER is defective and to exchange the MICROCOMPUTER. In such a case, perform the forced-reset by the following procedure and check good or no good of the MICROCOMPUTER.

1 Remove the AC power cord.

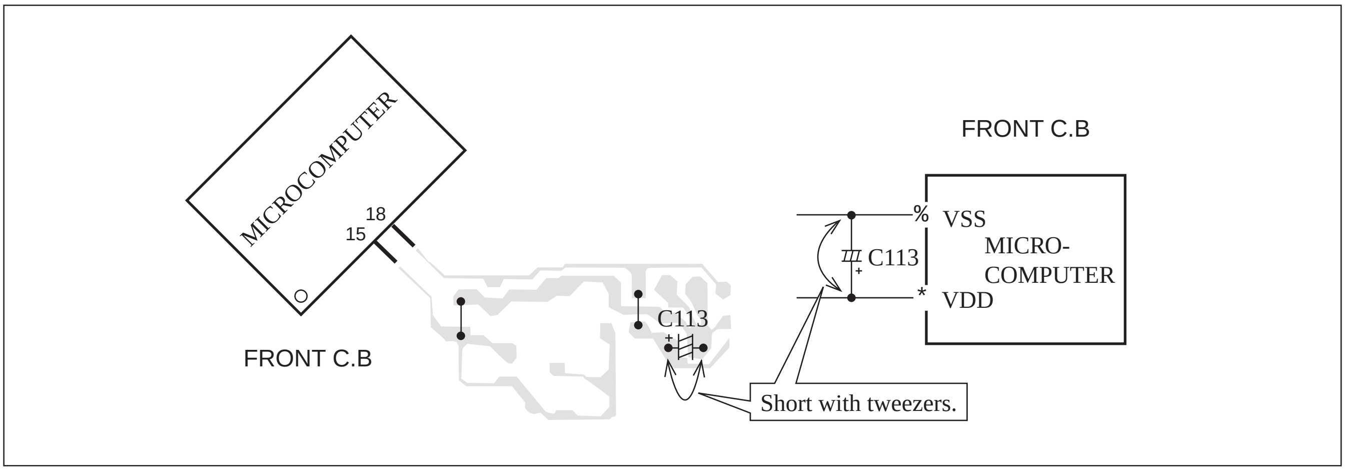


Fig-2-2

2 Short both ends of the electrolytic capacitor C113 that is connected to VDD of the MICROCOMPUTER with tweezers.

3 Connect the AC power cord again. If the MICROCOMPUTER returns to the normal operation, the MICROCOMPUTER is good.

Note: The reference number or MICROCOMPUTER pin number of transistor (Q110) and electrolytic capacitor (C113) can change depending on the models. Be sure to check the reference numbers on schematic diagram before starting the discharging work.

2-3. Confirmation of soldering state of MICROCOMPUTER

Check the soldering state of the MICROCOMPUTER in addition to the above described procedures. Be sure to exchange the MICROCOMPUTER after surely confirming that the trouble is not caused by poor soldering but the MICROCOMPUTER itself.

ELECTRICAL MAIN PARTS LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
IC			
	8A-NFA-616-010		C-IC,M38B59MFH-E251FP
	87-A21-396-010		IC,STK490-040
	87-A21-419-040		C-IC,NJM14558MD-TE2
	87-A21-443-040		C-IC,M62495AFP
	87-A21-415-010		IC,LA1843
	87-070-127-110		IC,LC72131 D
	87-A21-482-010		RPM6938-H4
	87-A20-440-040		C-IC,BU1920FS
TRANSISTOR			
	87-026-609-080		TR,KTA1266GR
	89-213-702-010		TR,2SB1370E
	87-026-610-080		TR,KTC3198GR
	87-A30-076-080		C-TR,2SC3052F
	87-A30-075-080		C-TR,2SA1235F
	87-026-245-080		TR,DTC114ES
	87-A30-090-080		FET,2SK2541
	87-A30-107-070		C-TR,CMBT5401
	87-A30-106-040		C-TR,CMBT5551
	87-026-235-080		CHIP-TR,DTC114EK
	87-A30-091-080		FET,2SJ460
	89-333-317-880		TR,2SC3331 (T/U)
	87-A30-234-080		TR,CSC4115BC
	89-327-143-080		TR,2SC2714O
	89-503-602-080		C-FET,2SK360E
	87-A30-318-080		TR,CSA952K
	87-A30-062-080		C-TR,KRC104S
	87-A30-489-080		C-TR,KRA107S
	87-A30-086-040		C-TR,CSD1306E
	87-A30-484-080		C-TR,KRA102S
DIODE			
	87-A40-393-090		DIODE,1N5402GW(F20)
	87-A40-455-080		DIODE,RL203 GW
	87-A40-553-080		DIODE,IN4003 LES
	87-A40-776-080		ZENER,UZ27BSD
	87-A40-764-080		ZENER,UZ10BSC
	87-A40-313-080		C-DIODE,MC 2840
	87-A40-270-080		C-DIODE,MC2838
	87-A40-269-080		C-DIODE,MC2836
	87-A40-291-080		DIODE,1N4148M CPT)
	87-017-154-080		ZENER,HZS6C3L
	87-A40-739-080		ZENER,UZ2.7BSA
	87-017-149-080		ZENER,HZS6A2L
	87-020-465-080		DIODE,1SS133
	87-A40-768-080		ZENER,UZ16BSA
MAIN C.B			
C3	87-012-368-080		CHIP CAPACITOR,0.1-50 ZF
C4	87-012-368-080		CHIP CAPACITOR,0.1-50 ZF
C5	87-012-368-080		CHIP CAPACITOR,0.1-50 ZF
C6	87-012-368-080		CHIP CAPACITOR,0.1-50 ZF
C9	87-012-368-080		CHIP CAPACITOR,0.1-50 ZF
C10	87-012-368-080		CHIP CAPACITOR,0.1-50 ZF
C11	87-012-368-080		CHIP CAPACITOR,0.1-50 ZF
C12	87-012-368-080		CHIP CAPACITOR,0.1-50 ZF
C19	87-010-917-000		CAP,E 3300-50 M SMG
C20	87-010-917-000		CAP,E 3300-50 M SMG
C21	87-010-389-090		CAP,E 2200-25 M SMG
C22	87-010-389-090		CAP,E 2200-25 SMG
C25	87-010-385-080		CAP, ELECT 220-25V M 11L SME
C26	87-010-247-080		CAP, ELECT 100-50V M 11L SME
C30	87-010-430-080		CAP, ELECT 100-63
C31	87-010-263-080		CAP, ELECT 100-10V M 11L SME
C32	87-010-197-080		CAP, CHIP 0.01-25 KB
C34	87-010-384-080		CAP, ELECT 100-25V M 11L SME
C35	87-010-380-080		CAP, ELECT 47-16 M 11L SME
C36	87-010-381-080		CAP,E 330-16 M SME
C38	87-010-197-080		C-CAP,S 0.01-25 KB
C60	87-010-403-080		CAP, ELECT 3.3-50V M 11L SME
C61	87-010-260-080		CAP, ELECT 47-25V M 11L SME
C97	87-010-196-080		C-CAP,S 0.1-25 ZF
C99	87-010-805-080		C-CAP,S 1-16 ZF
C101	87-010-183-080		C-CAP,S 2700P-50 KB
C102	87-010-183-080		C-CAP,S 2700P-50 KB
C103	87-010-544-080		CAP, ELECT 0.1-50V M 11L SME
C104	87-010-544-080		CAP, ELECT 0.1-50V M 11L SME
C105	87-010-184-080		CHIP CAP 3300P-50 KB
C106	87-010-184-080		CHIP CAP 3300P-50 KB
C107	87-010-404-080		CAP, ELECT 4.7-50V M 11L SME
C108	87-010-404-080		CAP, ELECT 4.7-50V M 11L SME
C109	87-012-157-080		C-CAP,S 330P-50 J CH
C110	87-012-157-080		C-CAP,S 330P-50 J CH
C111	87-010-391-080		CAP,E 10-35 M 11L SME
C112	87-010-391-080		CAP,E 10-35 M 11L SME
C113	87-010-405-080		CAP, ELECT 10-50V M 11L SME
C114	87-010-405-080		CAP, ELECT 10-50V M 11L SME
C119	87-010-197-080		CAP, CHIP 0.01-25 KB
C120	87-010-197-080		CAP, CHIP 0.01-25 KB
C123	87-010-184-080		C-CAP,S 3300P-50 KB
C124	87-010-184-080		C-CAP,S 3300P-50 KB
C125	87-012-368-080		C-CAP,S 0.1-50 ZF
C126	87-012-368-080		C-CAP,S 0.1-50 ZF
C127	87-012-368-080		C-CAP,S 0.1-50 ZF
C128	87-012-368-080		C-CAP,S 0.1-50 ZF
C129	87-010-191-080		C-CAP,S 0.015-50 ZF GRM
C130	87-010-191-080		C-CAP,S 0.015-50 ZF GRM
C131	87-010-197-080		CAP, CHIP 0.01-25 KB
C132	87-010-197-080		CAP, CHIP 0.01-25 KB
C133	87-010-186-080		CAP,CHIP 4700P-50 KB
C140	87-010-182-080		C-CAP,S 2200P-50 KB
C241	87-010-181-080		C-CAP,S 1800P-50 KB
C242	87-010-181-080		C-CAP,S 1800P-50 KB
C301	87-010-180-080		CHIP CAP 1500P-50 KB
C302	87-010-180-080		CHIP CAP 1500P-50 KB
C303	87-010-180-080		CHIP CAP 1500P-50 KB
C304	87-010-180-080		CHIP CAP 1500P-50 KB
C305	87-010-198-080		CAP, CHIP 0.022-25 KB
C307	87-010-263-080		CAP, ELECT 100-10V M 11L SME
C308	87-010-263-080		CAP, ELECT 100-10V M 11L SME
C309	87-010-297-080		C-CAP,100P-50 J CH
C310	87-010-297-080		C-CAP,100P-50 J CH
C311	87-010-598-080		C-CAP,S 0.068-16VRK
C312	87-010-598-080		C-CAP,S 0.068-16VRK
C313	87-010-187-080		CAP CHIP S5600P-50 KB
C314	87-010-187-080		CAP CHIP S5600P-50 KB
C315	87-010-263-080		CAP, ELECT 100-10V
C317	87-010-400-080		CAP, ELECT 0.47-50V M 11L SME
C318	87-010-400-080		CAP, ELECT 0.47-50V M 11L SME
C326	87-010-198-080		CAP, CHIP 0.022-25 KB
C327	87-010-196-080		CHIP CAPACITOR,0.1-25
C360	87-010-401-080		CAP, ELECT 1-50V M 11L SME
C365	87-010-197-080		C-CAP,S 0.01-50 KB
C399	87-012-140-080		CAP 470P-50 J CH
C401	87-010-544-080		CAP, ELECT 0.1-50V M 11L SME
C402	87-010-544-080		CAP, ELECT 0.1-50V M 11L SME
C403	87-012-145-080		CAP, CHIP S 270P-50 CH
C404	87-012-145-080		CAP, CHIP S 270P-50 CH
C405	87-010-197-080		CAP, CHIP 0.01-25 DM
C406	87-010-197-080		CAP, CHIP 0.01-25 DM
C407	87-010-197-080		CAP, CHIP 0.01-25 DM
C408	87-010-197-080		CAP, CHIP 0.01-25 DM
C409	87-010-182-080		C-CAP,S 2200P-50 B
C410	87-010-182-080		C-CAP,S 2200P-50 B
C411	87-010-405-080		CAP, ELECT 10-50V M 11L SME
C412	87-010-405-080		CAP, ELECT 10-50V M 11L SME
C452	87-010-382-080		CAP, ELECT 22-25V M 11L SME

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C453	87-010-183-080		C-CAP,S 2700P-50 B
C454	87-010-183-080		C-CAP,S 2700P-50 B
C455	87-010-183-080		C-CAP,S 2700P-50 B
C456	87-010-197-080		CAP, CHIP 0.01-25 DM
C458	87-010-178-080		CHIP CAP 1000P-50
C459	87-010-175-080		CAP 560P-50
C460	87-010-196-080		C-CAP,S 0.1-25 ZF
C461	87-012-158-080		C-CAP,S 390P-50 CH
C462	87-012-158-080		C-CAP,S 390P-50 CH
C601	87-012-140-080		CAP,CHIP S 470P-50 J CH
C602	87-012-140-080		CAP,CHIP S 470P-50 J CH
C609	87-010-213-080		C-CAP,S 0.015-25 B
C610	87-010-213-080		C-CAP,S 0.015-25 B
C611	87-010-546-080		CAP, ELECT 0.33-50V M 11L SME
C612	87-010-546-080		CAP, ELECT 0.33-50V M 11L SME
C613	87-010-546-080		CAP, ELECT 0.33-50V M 11L SME
C614	87-010-546-080		CAP, ELECT 0.33-50V M 11L SME
C615	87-010-154-080		CAP CHIP 10P-50 D CH
C616	87-010-385-080		CAP, ELECT 220-25V M 11L SME
C617	87-010-385-080		CAP, ELECT 220-25V M 11L SME
C618	87-010-405-080		CAP, ELECT 10-50V M 11L SME
C630	87-A10-201-080		C-CAP, S 0.33-16 KB
C669	87-010-322-080		C-CAP,S 100P-50 CH
C670	87-010-322-080		C-CAP,S 100P-50 CH
C677	87-010-197-080		CAP, CHIP 0.01-25 DM
C678	87-010-197-080		CAP, CHIP 0.01-25 DM
C771	87-010-263-080		CAP, ELECT 100-10VM 11L SME
C772	87-010-197-080		CAP, CHIP 0.01-25 KB
C779	87-010-958-080		C-CAP,S 0.1-25 JB
C780	87-010-958-080		C-CAP,S 0.1-25 JB
C782	87-010-197-080		CAP, CHIP 0.01-25 KB
C783	87-010-197-080		CAP, CHIP 0.01-25 KB
C784	87-010-197-080		CAP, CHIP 0.01-25 KB
C785	87-010-197-080		CAP, CHIP 0.01-25 KB
C786	87-010-197-080		CAP, CHIP 0.01-25 KB
C788	87-010-149-080		C-CAP,S 5P-50 CH
C789	87-A10-801-080		C-CAP,S 0.022-16 JB
C790	87-A10-801-080		C-CAP,S 0.022-16 JB
C791	87-010-196-080		CHIP CAPACITOR,0.1-25
C792	87-010-197-080		CAP, CHIP 0.01-25 DM
C793	87-010-404-080		CAP, ELECT 4.7-50V M 11L SME
C795	87-010-197-080		CAP, CHIP 0.01-25 DM
C796	87-010-197-080		CAP, CHIP 0.01-25 DM
C797	87-010-405-080		CAP, ELECT 10-50V M 11L SME
C798	87-010-197-080		CAP, CHIP 0.01-25 DM
C799	87-010-407-080		CAP, ELECT 33-50V M 11L SME
C800	87-018-095-080		CAP, TC 0.01-25 KXR
C801	87-010-403-080		CAP, ELECT 3.3-50V M 11L SME
C802	87-010-194-080		CAP, CHIP 0.047-25 ZF
C803	87-010-198-080		CAP, CHIP 0.022-25 KB
C804	87-010-263-080		CAP, ELECT 100-10V M 11L SME
C807	87-010-400-080		CAP, ELECT 0.47-50V M 11L SME
C808	87-010-401-080		CAP, ELECT 1-50V M 11L SME
C809	87-010-401-080		CAP, ELECT 1-50V M 11L SME
C810	87-010-196-080		CHIP CAPACITOR,0.1-25
C814	87-010-197-080		CAP, CHIP 0.01-25 KB
C815	87-010-403-080		CAP, ELECT 3.3-50V M 11L SME
C816	87-010-403-080		CAP, ELECT 3.3-50V M 11L SME
C818	87-010-180-080		C-CAP,S 1500P-50 KB
C821	87-010-405-080		CAP, ELECT 10-50V M 11L SME
C823	87-012-349-080		C-CAP,S 1000P-50 J CH
C824	87-010-405-080		CAP, ELECT 10-50 M 11L SME
C825	87-010-596-080		CAP, S 0.047-16
C831	87-010-406-080		CAP,E 22-50 M 11L SME
C842	87-010-197-080		CAP, CHIP 0.01-25 KB
C844	87-010-197-080		CAP, CHIP 0.01-25 KB
C850	87-010-260-080		CAP, ELECT 47-25V M 11L SME
C851	87-010-197-080		CAP, CHIP 0.01-25 KB
C852	87-010-197-080		CAP, CHIP 0.01-25 KB
C853	87-010-197-080		CAP, CHIP 0.01-25 KB

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C858	87-010-196-080		CHIP CAPACITOR,0.1-25
C859	87-010-196-080		CHIP CAPACITOR,0.1-25
C860	87-010-197-080		CAP, CHIP 0.01-25 KB
C862	87-010-401-080		CAP,E 1-50 M 11L SME
C869	87-010-197-080		CAP, CHIP 0.01-25 KB
C871	87-012-156-080		C-CAP,S 220P-50 J CH
C872	87-012-156-080		C-CAP,S 220P-50 J CH
C873	87-012-140-080		C-CAP,S 470P-50 J CH
C874	87-010-405-080		CAP,E 10-50 M 11L SME
C875	87-010-196-080		CHIP CAPACITOR,0.1-25
C876	87-010-405-080		CAP,E 10-50 M 11L SME
C877	87-010-197-080		CAP, CHIP 0.01-25 KB
C878	87-010-316-080		C-CAP,S 33P-50 J CH
C879	87-010-314-080		C-CAP,S 22P-50 J CH
C940	87-010-197-080		CAP, CHIP 0.01-25 KB
C942	87-010-149-080		C-CAP,S 55P-50 J CH
C947	87-010-197-080		CAP, CHIP 0.01-25 KB
C948	87-012-140-080		C-CAP,S 470P-50 J CH
C952	87-010-197-080		CAP, CHIP 0.01-25 KB
C957	87-010-311-080		C-CAP,S 12P-50 J CH
C958	87-010-197-080		CAP, CHIP 0.01-25 KB
C959	87-010-196-080		CHIP CAPACITOR,0.1-25
C960	87-010-196-080		CHIP CAPACITOR,0.1-25
C962	87-010-401-080		CAP,E 1-50 M 11L SME
C963	87-015-785-080		CHIP CAPACITOR, 0.1FZ-25Z
C971	87-010-381-080		CAP, ELECT 330-16V M 11L SME
C972	87-010-404-080		CAP, ELECT 4.7-50V M 11L SME
C973	87-010-197-080		CAP, CHIP 0.01-25 KB
C974	87-010-197-080		CAP, CHIP 0.01-25 KB
C979	87-010-322-080		C-CAP,S 100P-50 CH
C981	87-010-260-080		CAP, ELECT 47-25V M 11L SME
C982	87-010-196-080		CHIP CAPACITOR,0.1-25
C983	87-010-197-080		CAP, CHIP 0.01-25 KB
C984	87-010-197-080		CAP, CHIP 0.01-25 KB
C985	87-010-322-080		C-CAP,S 100P-50 J CH
C987	87-010-197-080		CAP, CHIP 0.01-25 KB
C989	87-010-197-080		CAP, CHIP 0.01-25 KB
C991	87-010-312-080		C-CAP,S 15P-50 CH
C992	87-010-312-080		C-CAP,S 15P-50 CH
C993	87-010-178-080		CHIP CAP 1000P-50 KB
C995	87-010-178-080		CHIP CAP 1000P-50 KB
C997	87-010-196-080		CHIP CAPACITOR,0.1-25
C998	87-010-260-080		CAP, ELECT 47-25 M 11L SME
C999	87-A11-145-080		CAP,TC U 0.01-50 ZF
CF831	87-008-423-010		FILTER,CF SFE10.7MS3G-A
CF832	82-785-747-010		CF,MS2 GHY,R
CN301	87-A60-620-010		CONN,3P V 2MM JMT
CN351	87-A60-625-010		CONN,8P V 2MM JMT
CN601	88-NF9-657-010		CONN,30P H BLK TYK-B(X)
CN602	87-A60-131-010		CONN,6P V FE
CNA1	8A-MA6-643-110		F-CABLE,9P 2.5 450MM
CON301	8A-MA6-642-010		CONN ASSY,3P (PH)
CON351	8A-MA6-641-010		CONN ASSY,8P (RPB)
FB602	87-A90-896-080		F-BEAD,035600STY7
FC602	88-906-321-110		FF-CABLE,6P 1.25 320MM
FFE831	A8-6ZA-191-130		6ZA-1 FEENM
J202	87-A60-602-010		JACK,DIA6.3 BLK ST W/SW TC
J203	87-A60-238-010		TERMINAL,SP 4P (MSC)
J602	87-A60-881-010		JACK,PIN 2P MSP 242V05 PBSN
J832	87-A60-403-010		TERMINAL,ANT PAL 2P HSP-312V05
JW102	87-003-223-080		F-BEAD,BL02RN2
JW622	87-A90-896-080		F-BEAD,035600STY7
L101	87-003-383-010		COIL,1UH-K
L102	87-003-383-010		COIL,1UH-K
L451	87-007-342-010		COIL,OSC 85K BIAS
L801	87-A50-540-010		COIL,FM DET(TOK)
L802	87-A91-551-010		FLTR,PCFJZH-450 L(TOK)
L811	87-005-847-080		COIL,2.2UHK (CECS)
L832	87-005-847-080		COIL,2.2UHK (CECS)
L861	87-005-847-080		COIL,2.2UHK (CECS)

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
L941	87-A50-020-010		COIL,ANT LW (C0I) 252KHZ
L942	87-A50-019-010		COIL,OSC LW (C0I) 856KHZ
L951	8A-NF8-668-010		COIL,AM PACK 2(TOK)
R131	87-A00-669-080		RES,M/F 0.22-2W J RA
R132	87-A00-669-080		RES,M/F 0.22-2W J RA
R143	87-A00-440-050		RES,220-1/2W J RP
R144	87-A00-440-050		RES,220-1/2W J RP
R145	87-A00-440-050		RES,220-1/2W J RP
R146	87-A00-440-050		RES,220-1/2W J RP
R790	87-010-197-080		C-CAP,S 0.01-25 KB
R991	87-010-322-080		C-CAP,S 100P-50 J CH
R992	87-010-322-080		C-CAP,S 100P-50 J CH
R995	87-010-322-080		C-CAP,S 100P-50 J CH
SFR451	87-024-355-080		SFR,33K H EVN DJAA03
SFR452	87-024-355-080		SFR,33K H EVN DJAA03
TC942	87-011-253-080		TRIMMER,CER 30P 4.0X4.5 ECRLA
WH1	87-A90-510-010		HLDR,WIRE 2.5-9P
X861	87-A70-091-010		VIB,XTAL 4.332MHZ CSA-309
X991	87-A70-061-010		VIB,XTAL 4.500MHZ CSA-309

FRONT C.B

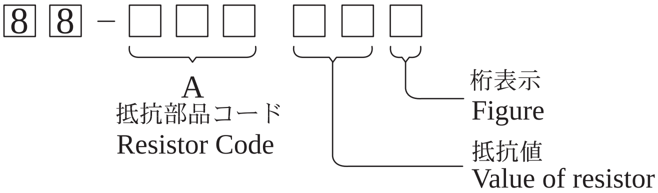
REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C101	87-A11-147-080		CAPACTOR TC U 0.047-50 ZF
C103	87-010-248-040		CAP,E 220-10 SME
C104	87-010-246-040		CAP,E 47-35 SME
C105	87-A11-146-080		CAP,TC U 0.022-50 ZF
C107	87-018-205-080		CAP,TC U 0.022-25 ZF
C108	87-018-131-080		CAP,TC U 1000P-50 KB
C109	87-018-131-080		CAP,TC U 1000P-50 KB
C110	87-018-131-080		CAP,TC U 1000P-50 KB
C111	87-018-205-080		CAP,TC U 0.022-25 ZF
C113	87-018-131-080		CAP,TC U 1000P-50V KB
C114	87-018-147-080		CAP,TC-U 10P-50 J CH
C115	87-018-128-080		CAP,TC U 560P-50 KB
C116	87-010-400-040		CAP,E 0.47-50 M 11L SME
C117	87-A11-148-080		CAP TC U 0.1-50 ZF
C118	87-010-248-040		CAP,E 220-10 SME
C119	87-010-248-040		CAP,E 220-10 SME
C120	87-018-123-080		CAP,TC U 220P-50V KB
C123	87-A11-148-080		CAP TC U 0.1-50 ZF
C124	87-A11-148-080		CAP TC U 0.1-50 ZF
C125	87-010-405-040		CAP,E 10-50 M 11L SME
C126	87-A11-148-080		CAP TC U 0.1-50 ZF
C130	87-010-405-040		CAP,E 10-50 M 11L SME
C201	87-018-118-080		CAP,TC-U 82P-50 B
C202	87-018-117-080		CAP,TC-U 68P-50 SL
C205	87-018-117-080		CAP,TC-U 68P-50 SL
C208	87-018-117-080		CAP,TC-U 68P-50 SL
C209	87-018-117-080		CAP,TC-U 68P-50 SL
C210	87-018-117-080		CAP,TC-U 68P-50 SL
C211	87-A11-147-080		CAPACTOR TC U 0.047-50 F
C212	87-010-404-040		CAP,E 4.7-50 SME
C213	87-010-404-040		CAP,E 4.7-50 SME
C216	87-A11-147-080		CAPACTOR TC U 0.047-50 F
C701	87-010-384-040		CAP,E 100-25 SME
CN101	88-NF9-658-010		CONN,30P BLK TYK-B(P)
CN701	87-A60-673-010		CONN,9P H 2MM JMT
CN801	87-099-015-010		CONN,13P V BLK 6216
FC801	88-913-271-110		FF-CABLE,13P 1.25
FL201	8A-NFA-604-010		FL,10-BT-224GNK
L101	87-A50-050-010		COIL,CLK 4.19M(COI)
LED101	87-A40-317-080		LED,SLR-342VCT31 RED
S101	87-A91-623-010		SW,RTRY EC12E2430403-25MM
S301	87-A90-095-080		SW,TACT EVQ11G04M
S302	87-A90-095-080		SW,TACT EVQ11G04M
S303	87-A90-095-080		SW,TACT EVQ11G04M
S304	87-A90-095-080		SW,TACT EVQ11G04M
S305	87-A90-095-080		SW,TACT EVQ11G04M
S306	87-A90-095-080		SW,TACT EVQ11G04M
S307	87-A90-095-080		SW,TACT EVQ11G04M
S308	87-A90-095-080		SW,TACT EVQ11G04M
S309	87-A90-095-080		SW,TACT EVQ11G04M
S310	87-A90-095-080		SW,TACT EVQ11G04M
S311	87-A90-095-080		SW,TACT EVQ11G04M
S312	87-A90-095-080		SW,TACT EVQ11G04M
S321	87-A90-095-080		SW,TACT EVQ11G04M
S322	87-A90-095-080		SW,TACT EVQ11G04M
S323	87-A90-095-080		SW,TACT EVQ11G04M
S324	87-A90-095-080		SW,TACT EVQ11G04M
S325	87-A90-095-080		SW,TACT EVQ11G04M
S326	87-A90-095-080		SW,TACT EVQ11G04M
S327	87-A90-095-080		SW,TACT EVQ11G04M
S328	87-A90-095-080		SW,TACT EVQ11G04M
S329	87-A90-095-080		SW,TACT EVQ11G04M
S330	87-A90-095-080		SW,TACT EVQ11G04M
S331	87-A90-095-080		SW,TACT EVQ11G04M
SFR701	87-024-352-080		SFR,4.7K H EVN DJAA03

PT C.B

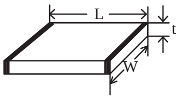
REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C183	87-010-387-080		CAP,E 470-25 SME
C184	87-010-403-080		CAP, ELECT 3.3-50V SME
⚠ PT1	8A-MA6-662-010		PT,AMA-6 EZ
⚠ PT181	8A-NF8-662-010		PT,SUB ANF-8 (E)
⚠ RY181	87-A90-976-010		RELAY,AC12V SDT-S-112LMR
⚠ T181	87-A60-317-010		TERMINAL, 1P MSC
⚠ T182	87-A60-317-010		TERMINAL, 1P MSC
WH181	87-A90-510-010		HLDR,WIRE 2.5-9P

Oチップ抵抗部品コード／CHIP RESISTOR PART CODE

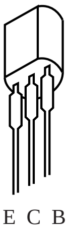
チップ抵抗部品コードの成り立ち
Chip Resistor Part Coding


8 8 − □□□ □□□
A
抵抗部品コード
Resistor Code
桁表示
Figure
抵抗値
Value of resistor

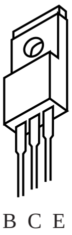
チップ抵抗
Chip resistor

容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm) 外形／Form	L	W	t	抵抗コード : A Resistor Code : A
1/16W	1005	± 5%	CJ		1.0	0.5	0.35	104
1/16W	1608	± 5%	CJ		1.6	0.8	0.45	108
1/10W	2125	± 5%	CJ		2	1.25	0.45	118
1/8W	3216	± 5%	CJ		3.2	1.6	0.55	128

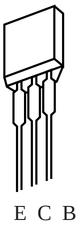
TRANSISTOR ILLUSTRATION



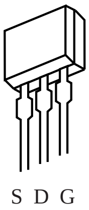
CSA952
CSC4115
KTA1266
KTC3198



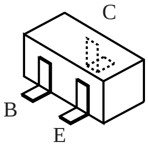
2SB1370
2SC3331



DTC114ES

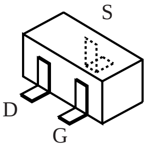


2SJ460
2SK2541



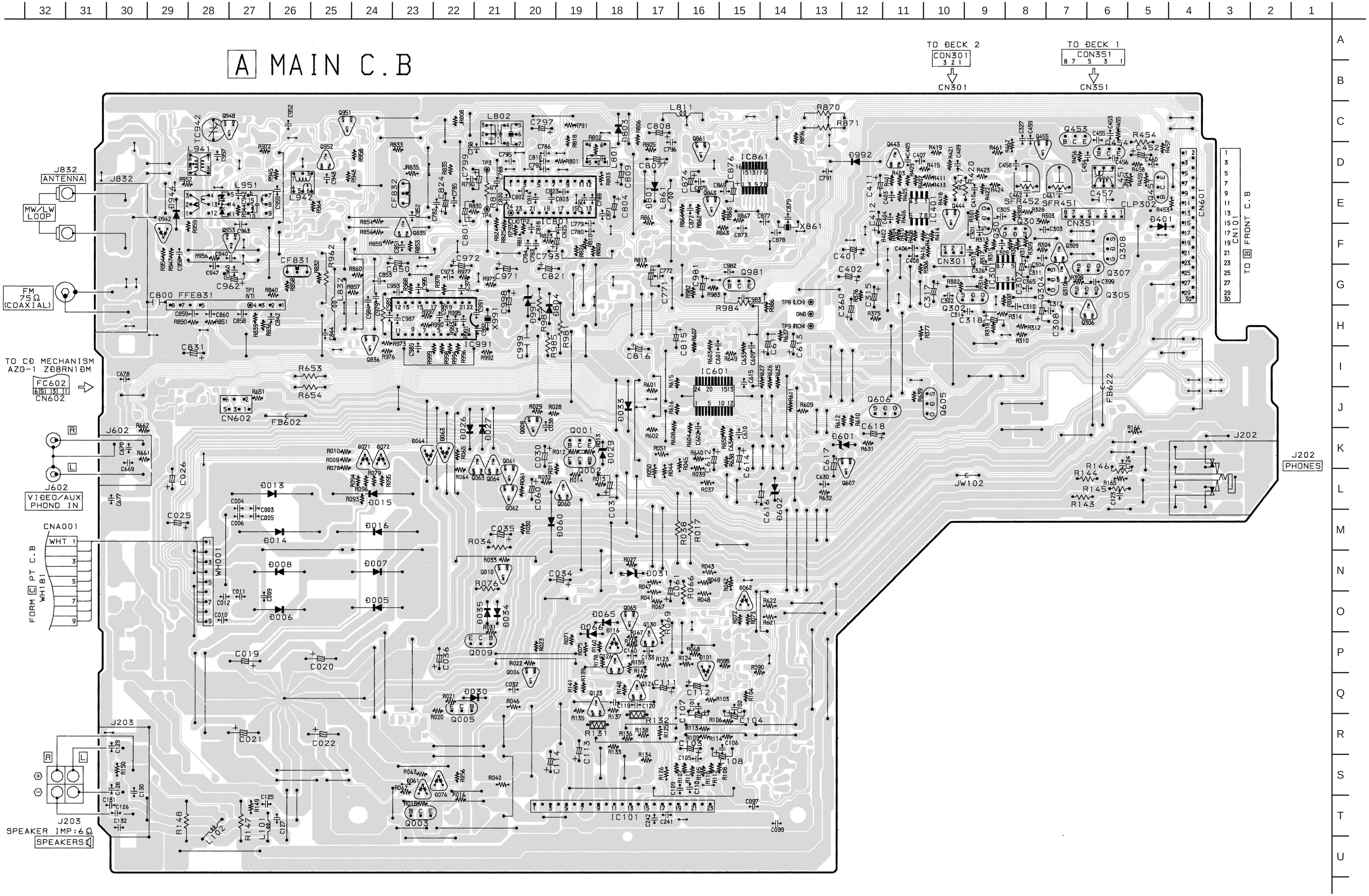
2SA1235
2SC2714
2SC3052
2SD1306
CMBT5401
CMBT5551

DTC114EK
KRA102
KRA107
KRC104



2SK360

WIRING - 1 (MAIN)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J
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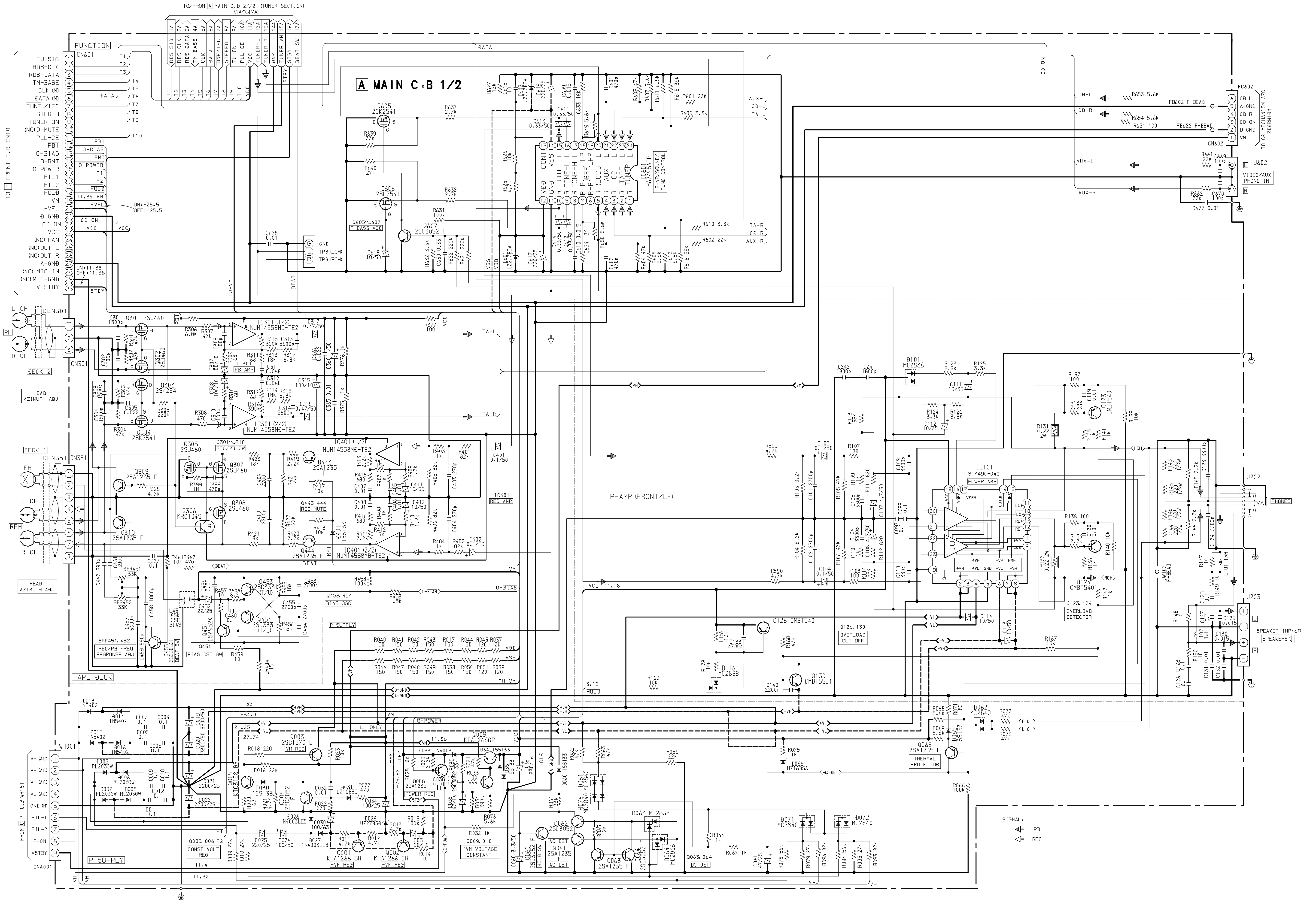
Q
R
S
T
U
A MAIN C.B
TO DECK 2
CON301
3 2 1
CN301
TO DECK 1
CON351
8 7 5 3 1
CN351
J832
ANTENNA
MW/LW LOOP
FM 75Ω (COAXIAL)
TO CD MECHANISM AZG-1 ZD8RN1DM
FC602
CN602
J602
VIDEO/AUX PHONO IN
CNA001
WHT
FORM C PT C.B
WH181
WH001
J203
SPEAKER IMP: 6Ω
SPEAKERS
TO B FRONT C.B
CN101
CN601
J202
PHONES
IC861
IC991
IC601
IC401
IC301
IC101
FFE831
CF831
CF832
L802
L811
L951
L941
L942
TC942
FB602
FB622
JW102
X861
X991
SFR452
SFR451
CLP302
CN351
CN301
TP1
TP3
TP4
TP8 (LCH)
GND
TP9 (RCH)
R870
R871
R653
R654
R984
R132
R131

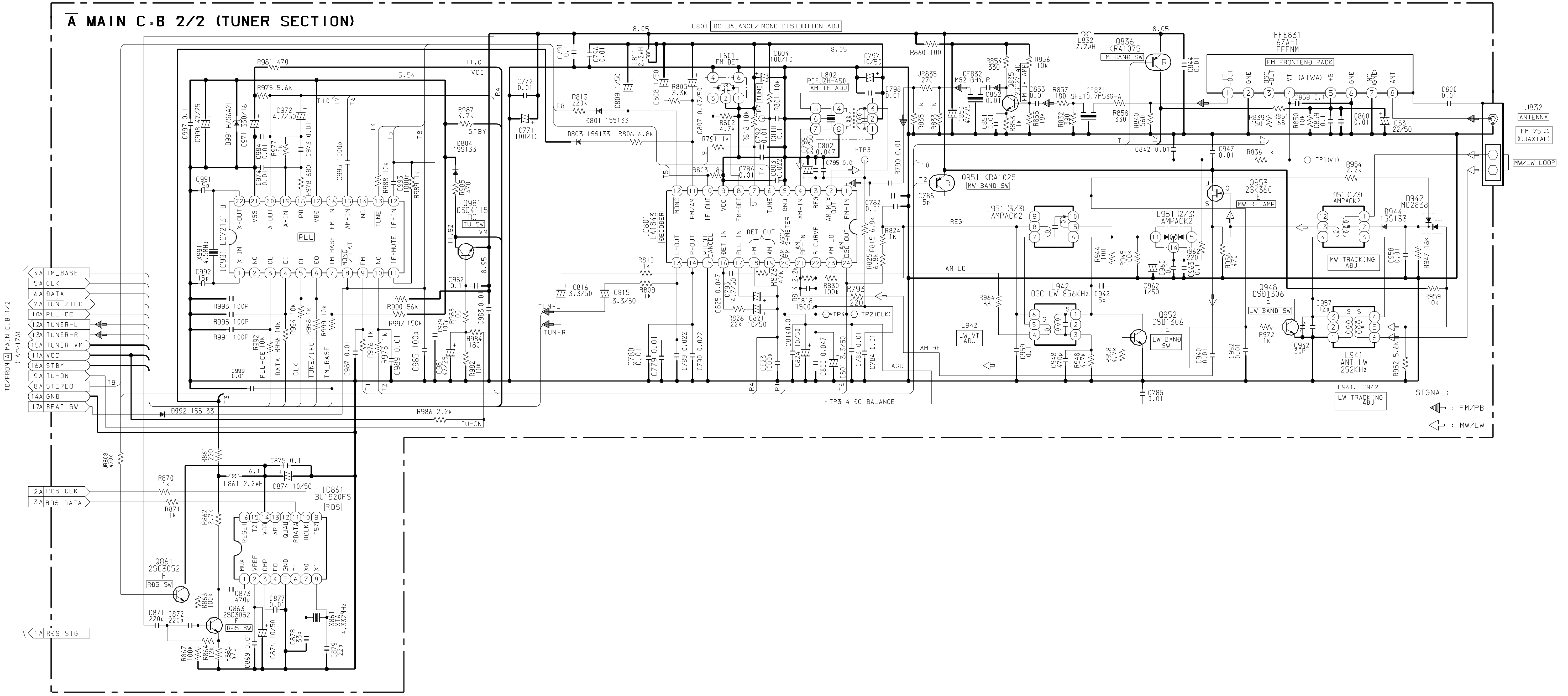
SCHEMATIC DIAGRAM - 1 (MAIN 1 / 2)

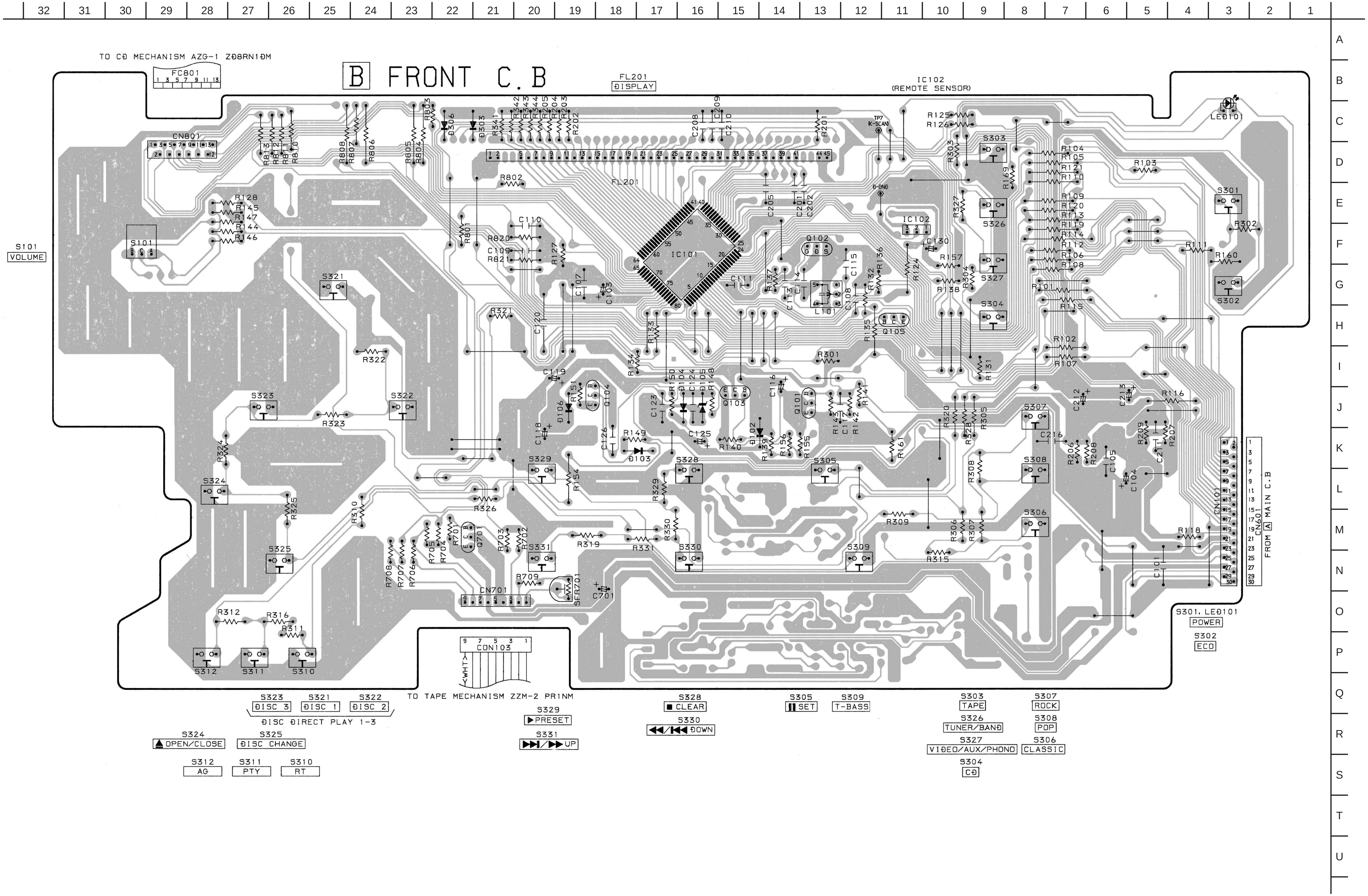


TO/FROM A MAIN C.B 2/2 (TUNER SECTION) (1A~17A)
A MAIN C.B 1/2
FUNCTION
CN601
TU-SIG
RDS-CLK
RDS-DATA
TM-BASE
CLK (M)
DATA (M)
TUNE /IFC
STEREO
TUNER-ON
(NC)O-MUTE
PLL-CE
PB1
O-BIAS
D-RMT
O-POWER
FIL1
FIL2
HOLD
VM
-VFL
D-GND
CD-ON
VCC
(NC) FAN
(NC)OUT L
(NC)OUT R
A-GND
(NC) MIC-IN
(NC)MIC-GND
V-STBY
TO B FRONT C.B CN101
ON:-25.5
OFF:-25.5
ON:11.38
OFF:11.38
Q605~607 T-BASS AGC
IC601 M62495AFP E-VR/SOUND/FUNC CONTROL
FC602
TO CD MECHANISM AZ0-1 28BRN10M
CN602
J602
VIDEO/AUX PHONO IN
CON301
CN301
PH
DECK 2
HEAD AZIMUTH ADJ
DECK 1
CON351
CN351
RPH
EH
IC301 (1/2) NJM14558MD-TE2
IC301 (2/2) NJM14558MD-TE2
IC301 PB AMP
IC401 (1/2) NJM14558MD-TE2
IC401 (2/2) NJM14558MD-TE2
IC401 REC AMP
Q301~310 REC/PB SW
Q443 444 REC MUTE
Q453 454 BIAS OSC
Q451 BIAS OSC SW
Q455 BEAT SW
SFR451.452 REC/PB FREQ RESPONSE ADJ
L451 OSC BIAS
TAPE DECK
P-SUPPLY
P-AMP (FRONT/LF)
IC101 STK490-040 POWER AMP
Q123, 124 OVERLOAD DETECTOR
Q126, 130 OVERLOAD CUT OFF
Q065 2SA1235 F THERMAL PROTECTOR
J202
PHONES
J203
SPEAKER IMP:6Ω
SPEAKERS
WH001
VH (AC)
VL (AC)
GND (M)
FIL-1
FIL-2
P-ON
VSTBY
CNA001
FROM C PT C.B WH181
Q005, 006 F2 CONST VOLT REG
Q001 KTA1266 GR -VF REG
Q002 KTA1266 GR -VF REG
Q008 2SA1235 F POWER REG
Q009, 010 +VM VOLTAGE CONSTANT
Q060 2SC3052 F HOLD SW
Q061 2SA1235 AC DET
Q062 2SC3052 AC DET
Q063, 064 DC DET
D063 MC2838
D071 MC2840
D072 MC2840
SIGNAL:
PB
REC

– 11 –

SCHEMATIC DIAGRAM - 2 (MAIN 2 / 2)


A MAIN C.B 2/2 (TUNER SECTION)
L801 DC BALANCE/MONO DISTORTION ADJ
IC991 LC72131 D
PLL
Q981 2SC4115 BC
TU SW
IC801 LA1843
DECODER
L801 FM DET
L802 PCFJZH-450L
AM IF ADJ
Q836 KRA107S
FM BAND SW
FFE831 6ZA-1 FEENM
FM FRONTEND PACK
J832 ANTENNA
FM 75 Ω (COAXIAL)
MW/LW LOOP
Q835 2SC2714O
FM IF AMP
CF832 M52 GHY.R
CF831 SFE10.7MS3G-A
Q951 KRA102S
MW BAND SW
Q953 2SK360 E
MW RF AMP
L951 (1/3) AMPACK2
L951 (2/3) AMPACK2
L951 (3/3) AMPACK2
D942 MC2838
D944 1SS133
MW TRACKING ADJ
L942 OSC LW 856KHz
L942 LW VT ADJ
Q952 CS01306 E
LW BAND SW
Q948 CS01306 E
LW BAND SW
L941 ANT LW 252KHz
L941, TC942 LW TRACKING ADJ
TC942 30P
IC861 BU1920FS
RDS
Q861 2SC3052 F
RDS SW
Q863 2SC3052 F
RDS SW
X861 4.332MHz
4A TM_BASE
5A CLK
6A DATA
7A TUNE/IFC
10A PLL-CE
12A TUNER-L
13A TUNER-R
15A TUNER VM
11A VCC
16A STBY
9A TU-ON
8A STEREO
14A GND
17A BEAT SW
2A RDS CLK
3A RDS DATA
1A RDS SIG
TO/FROM A MAIN C.B 1/2 (1A~17A)
TUN-L
TUN-R
TU-ON
*TP3, 4 DC BALANCE
TP1(VT)
TP2(CLK)
AM LO
AM RF
AGC
REG
SIGNAL:
: FM/PB
: MW/LW


B FRONT C.B
TO CD MECHANISM AZG-1 ZD8RN1DM
FC801
CN801
FL201
DISPLAY
IC102
(REMOTE SENSOR)
IC101
LED101
TP7
K-SCAN
D-GND
S101
VOLUME
L101
Q101
Q102
Q103
Q104
Q105
Q701
SFR701
CN701
CON103
<WHT>
CN101
CN601
FROM A MAIN C.B
TO TAPE MECHANISM ZZM-2 PR1NM
S323
DISC 3
S321
DISC 1
S322
DISC 2
DISC DIRECT PLAY 1-3
S324
▲ OPEN/CLOSE
S325
DISC CHANGE
S312
AG
S311
PTY
S310
RT
S329
▶PRESET
S331
▶▶I/▶▶ UP
S328
■ CLEAR
S330
◀◀/I◀◀ DOWN
S305
II SET
S309
T-BASS
S303
TAPE
S326
TUNER/BAND
S327
VIDEO/AUX/PHONO
S304
CD
S307
ROCK
S308
POP
S306
CLASSIC
S301, LED101
POWER
S302
ECO
32
31
30
29
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19
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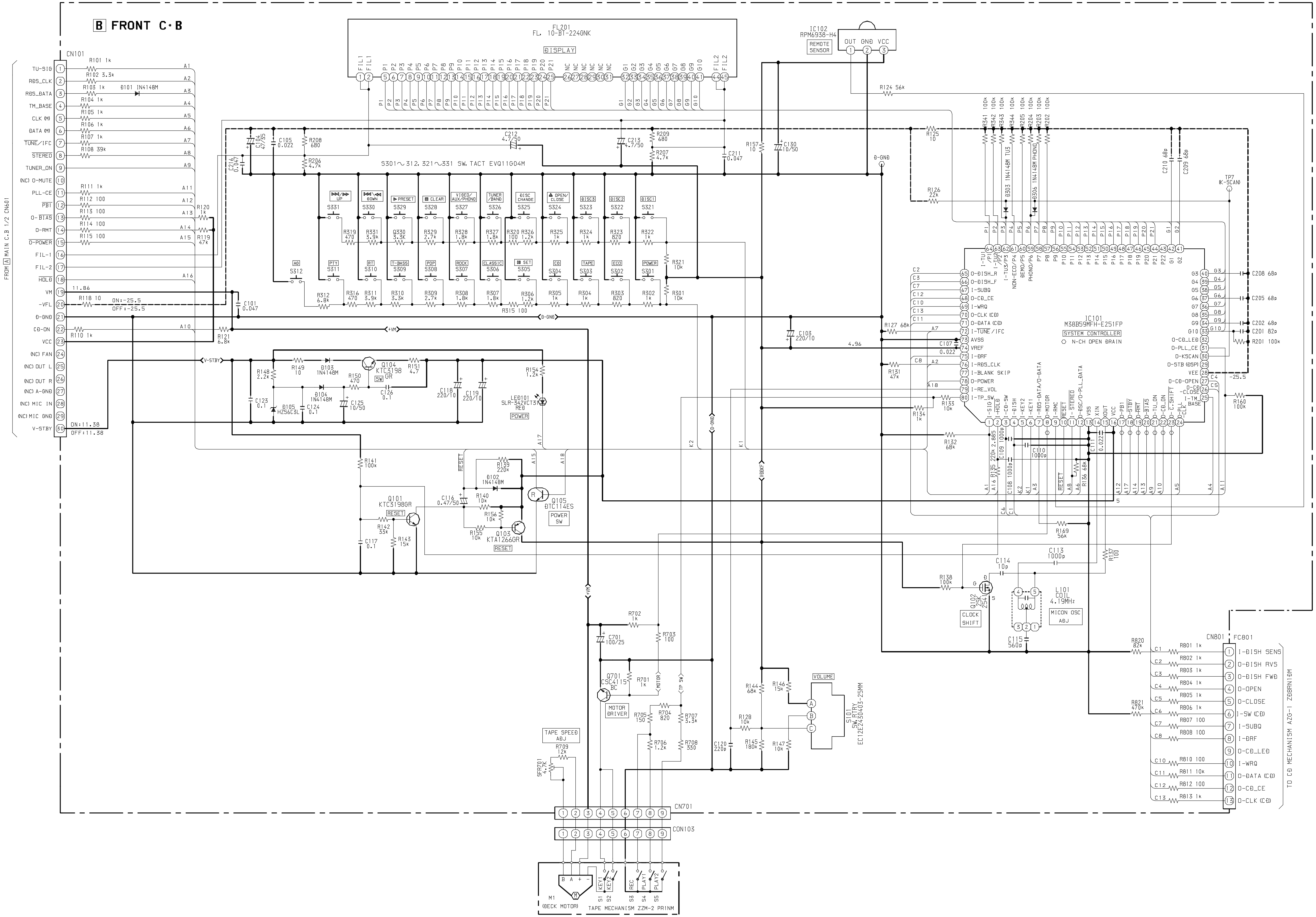
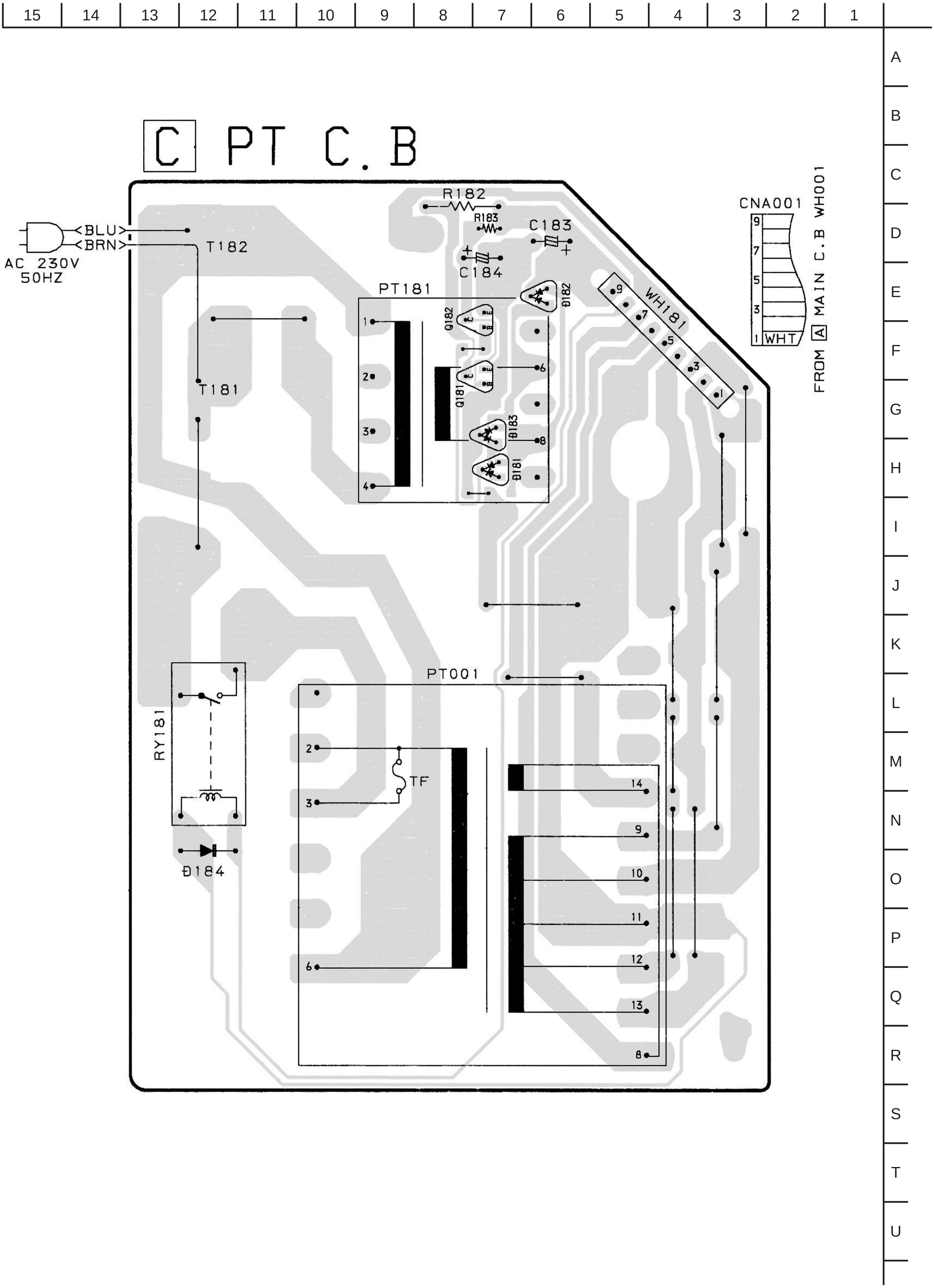
SCHEMATIC DIAGRAM - 3 (FRONT)


B FRONT C·B
CN101
FROM A MAIN C.B 1/2 CN601
TU-SIG
RDS_CLK
RDS_DATA
TM_BASE
CLK (M)
DATA (M)
TUNE/IFC
STEREO
TUNER_ON
(NC) D-MUTE
PLL-CE
PBI
O-BIAS
D-RMT
D-POWER
FIL-1
FIL-2
HOLD
VM
-VFL
D-GND
CD-ON
VCC
(NC) FAN
(NC) OUT L
(NC) OUT R
(NC) A-GND
(NC) MIC IN
(NC) MIC GND
V-STBY
FL201
FL 10-BT-224GNK
DISPLAY
IC102
RPM6938-H4
REMOTE SENSOR
OUT GND VCC
S301～312, 321～331 SW, TACT EVQ11G04M
UP
DOWN
PRESET
CLEAR
VIDEO/AUX/PHONO
TUNER/BAND
DISC CHANGE
OPEN/CLOSE
DISC3
DISC2
DISC1
AD
PTY
RT
T-BASS
PDP
ROCK
CLASSIC
SET
CD
TAPE
ECO
POWER
Q104 KTC3198 GR
SW
LED101 SLR-342VCT3x RED
POWER
Q101 KTC3198GR
RESET
Q105 DTC114ES
POWER SW
Q103 KTA1266GR
RESET
IC101
M38B59MFH-E251FP
SYSTEM CONTROLLER
○ N-CH OPEN DRAIN
TP7 (K-SCAN)
Q102 2SK2541
CLOCK SHIFT
L101 COIL 4.19MHz
MICON OSC ADJ
Q701 2SC4115 BC
MOTOR DRIVER
TAPE SPEED ADJ
SFR701 4.7K
VOLUME
S101 SW, RTRY EC12E2430403-25MM
CN701
CON103
M1 (BECK MOTOR)
TAPE MECHANISM ZZM-2 PR1NM
KEY1 KEY2 REC PLAY1 PLAY2
CN801 FC801
I-DISH SENS
O-DISH RVS
O-DISH FWD
O-OPEN
O-CLOSE
I-SW (CD)
I-SUBQ
I-DRF
O-CD_LED
I-WRQ
O-DATA (CD)
O-CD_CE
O-CLK (CD)
TO CD MECHANISM AZG-1 ZDBRNIDM

WIRING - 3 (PT)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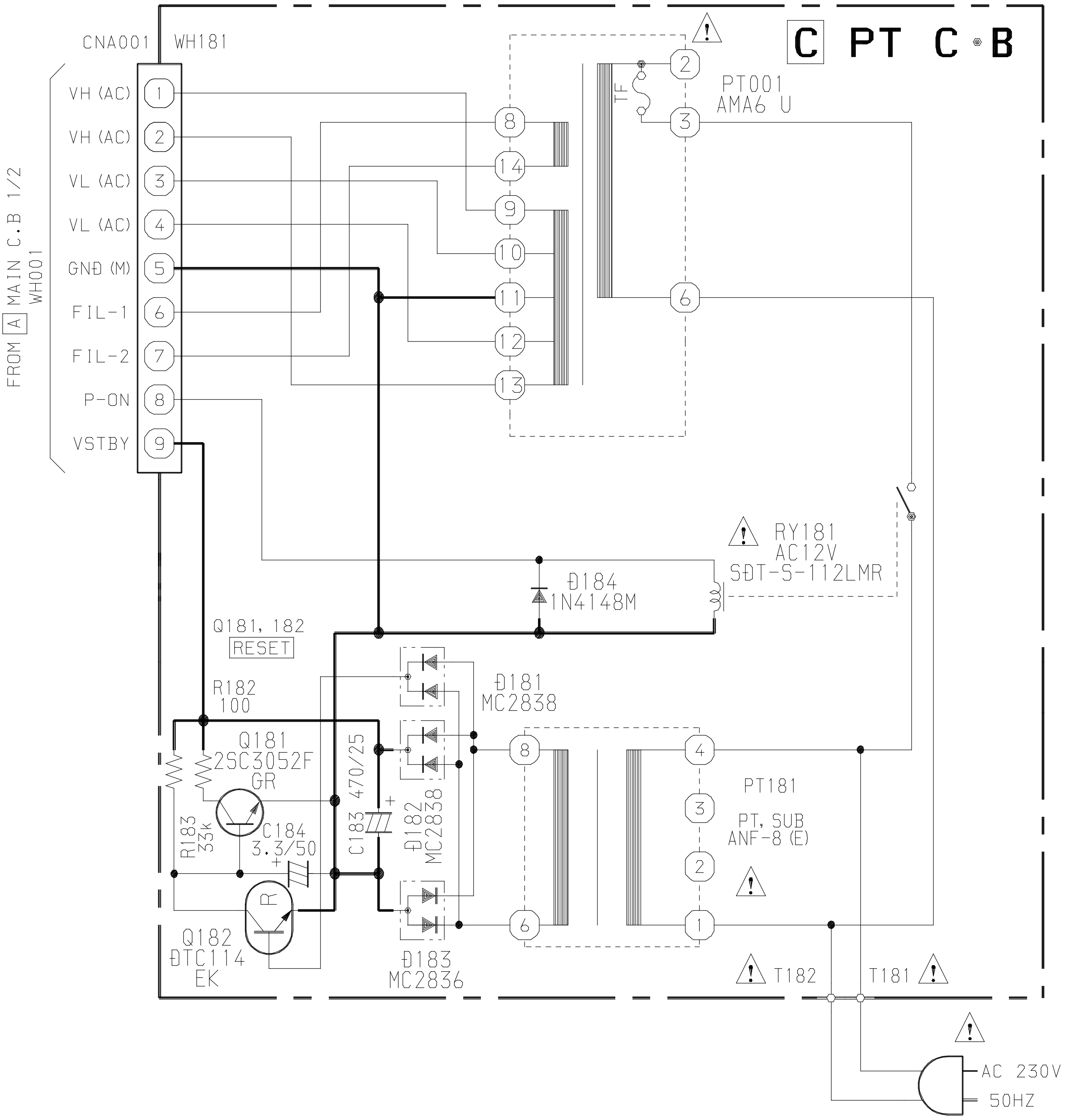
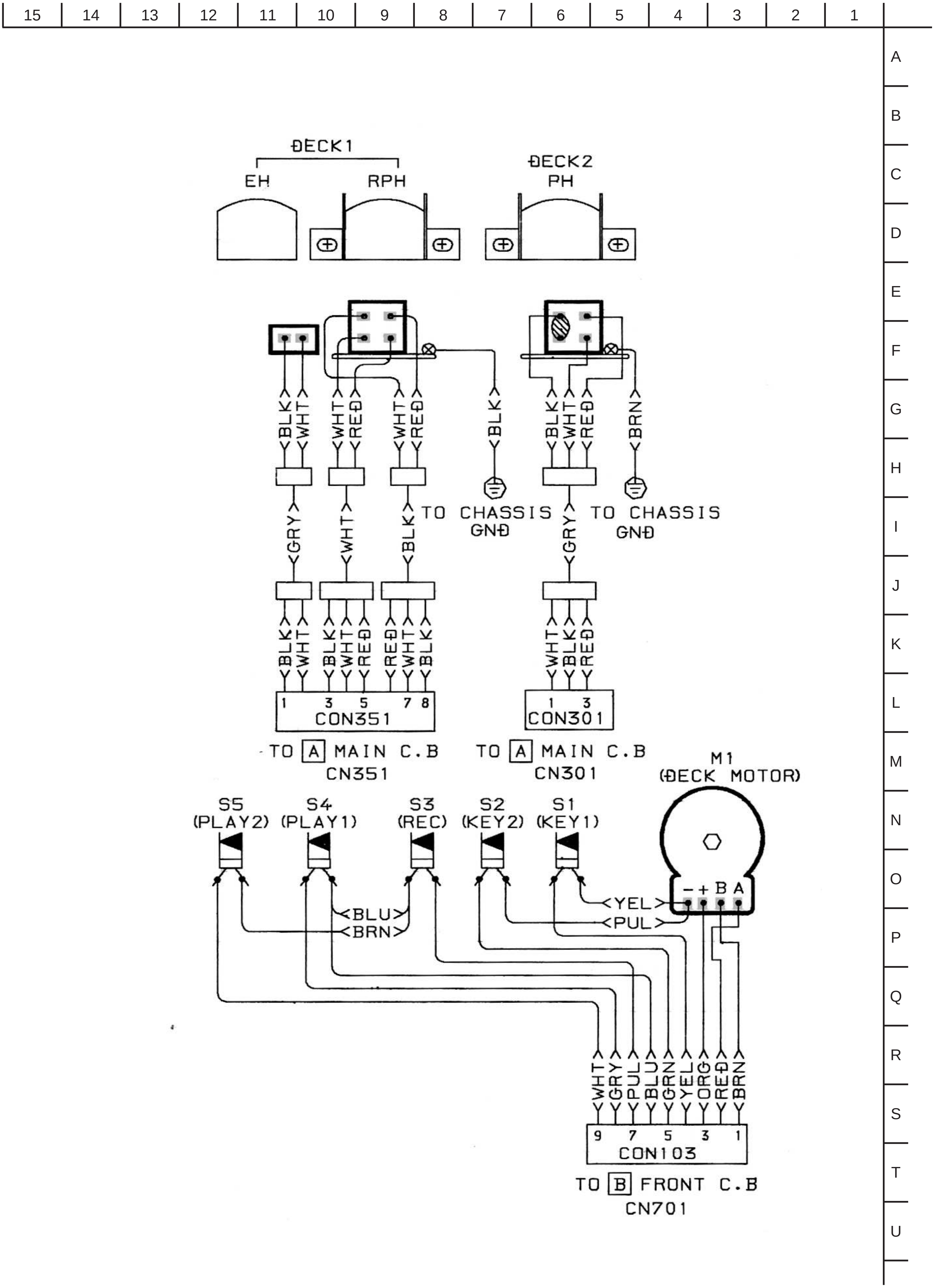
A B C D E F G H I J K L M N O P Q R S T U
C PT C.B
BLU
BRN
AC 230V
50HZ
T182
T181
R182
R183
C183
C184
PT181
Q182
Q181
Ð182
Ð183
Ð181
WH181
CNA001
WHT
FROM A MAIN C.B WH001
PT001
TF
RY181
Ð184
1 2 3 4 6 8 9 10 11 12 13 14

SCHEMATIC DIAGRAM - 4 (PT)

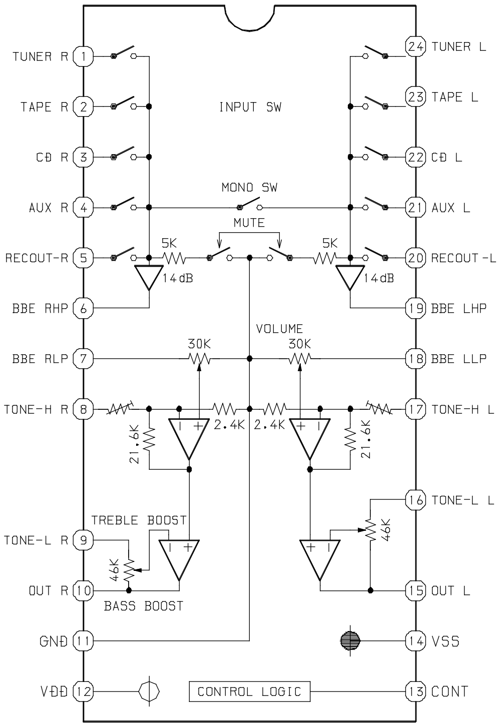

C PT C・B
CNA001
WH181
FROM A MAIN C.B 1/2
WH001
VH (AC) 1
VH (AC) 2
VL (AC) 3
VL (AC) 4
GNĐ (M) 5
FIL-1 6
FIL-2 7
P-ON 8
VSTBY 9
PT001
AMA6 U
TF
2
3
8
14
9
10
11
12
13
6
RY181
AC12V
SĐT-S-112LMR
Đ184
1N4148M
Q181, 182
RESET
R182
100
Q181
2SC3052F
GR
R183
33k
C184
3.3/50
C183 470/25
Đ182
MC2838
Đ181
MC2838
Q182
ĐTC114
EK
R
Đ183
MC2836
8
6
4
3
2
1
PT181
PT, SUB
ANF-8 (E)
T182
T181
AC 230V
50HZ

WIRING - 4 (DECK)

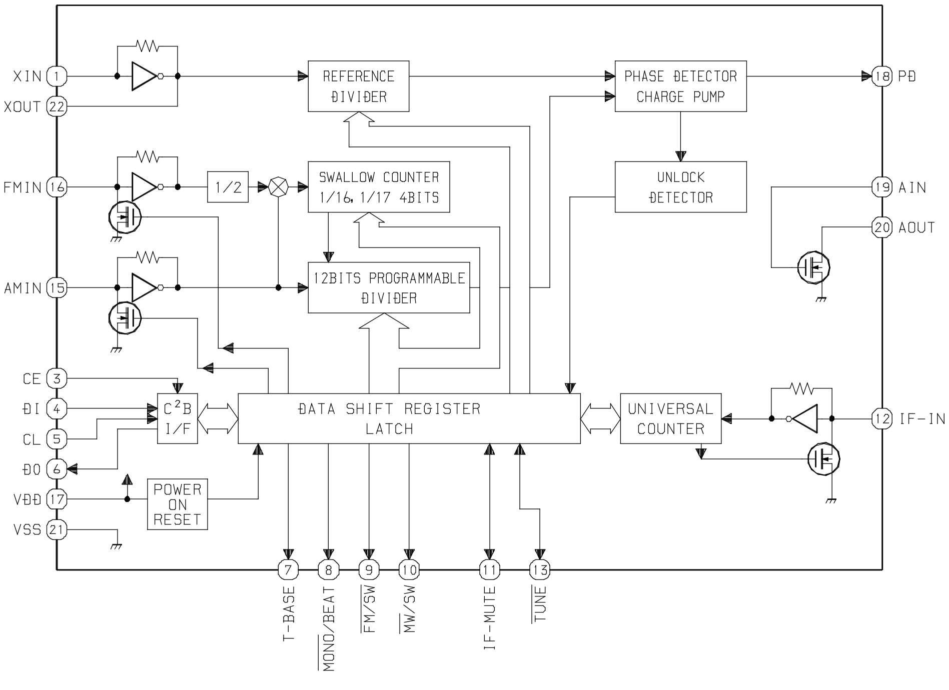

15 14 13 12 11 10 9 8 7 6 5 4 3 2 1
A B C D E F G H I J K L M N O P Q R S T U
DECK1
EH
RPH
DECK2
PH
BLK
WHT
WHT
RED
WHT
RED
BLK
BLK
WHT
RED
BRN
GRY
WHT
BLK
TO CHASSIS GND
GRY
TO CHASSIS GND
BLK
WHT
BLK
WHT
RED
RED
WHT
BLK
WHT
BLK
RED
1 3 5 7 8
CON351
1 3
CON301
TO A MAIN C.B CN351
TO A MAIN C.B CN301
M1 (DECK MOTOR)
S5 (PLAY2)
S4 (PLAY1)
S3 (REC)
S2 (KEY2)
S1 (KEY1)
– + B A
YEL
PUL
BLU
BRN
WHT
GRY
PUL
BLU
GRN
YEL
ORG
RED
BRN
9 7 5 3 1
CON103
TO B FRONT C.B CN701

IC BLOCK DIAGRAM

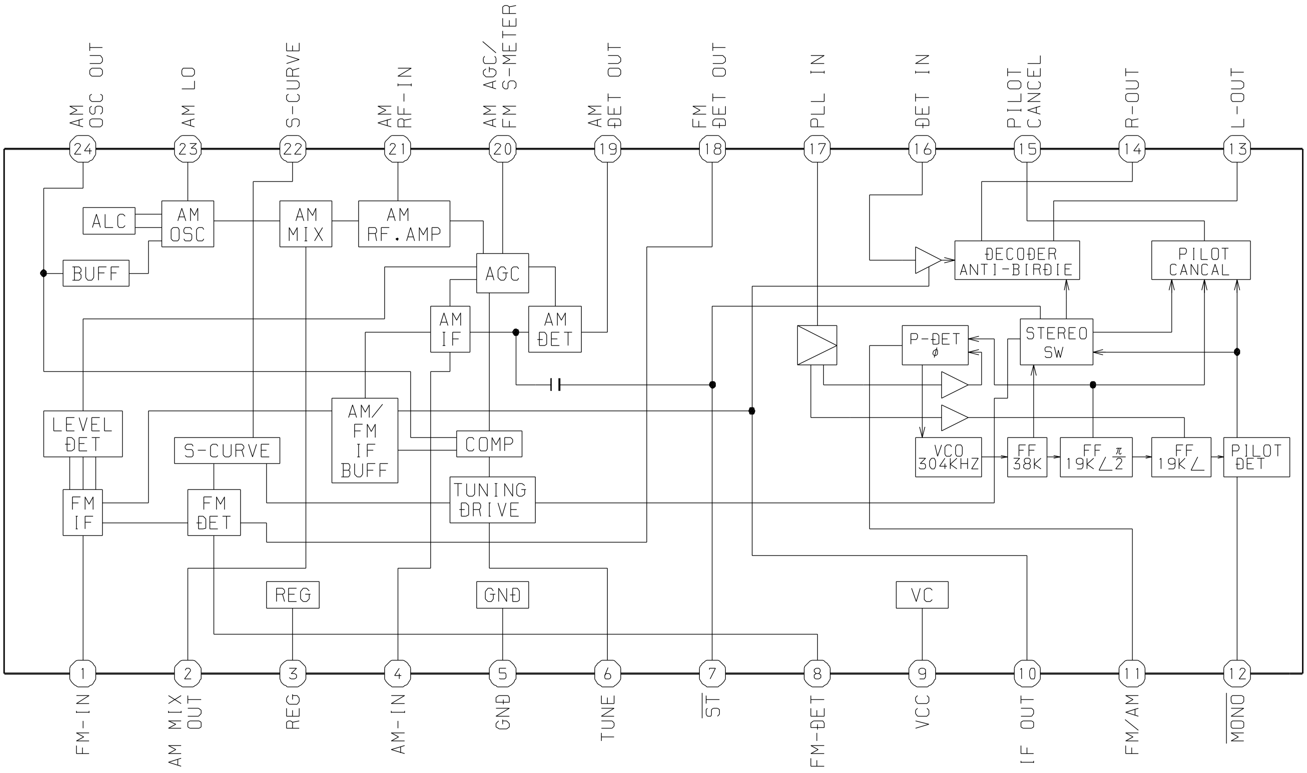
IC, M62495AFP


TUNER R 1
TAPE R 2
CD R 3
AUX R 4
RECOUT-R 5
BBE RHP 6
BBE RLP 7
TONE-H R 8
TONE-L R 9
OUT R 10
GND 11
VDD 12
24 TUNER L
23 TAPE L
22 CD L
21 AUX L
20 RECOUT-L
19 BBE LHP
18 BBE LLP
17 TONE-H L
16 TONE-L L
15 OUT L
14 VSS
13 CONT
INPUT SW
MONO SW
MUTE
5K
5K
14dB
14dB
VOLUME
30K
30K
2.4K
2.4K
21.6K
21.6K
TREBLE BOOST
46K
46K
BASS BOOST
CONTROL LOGIC

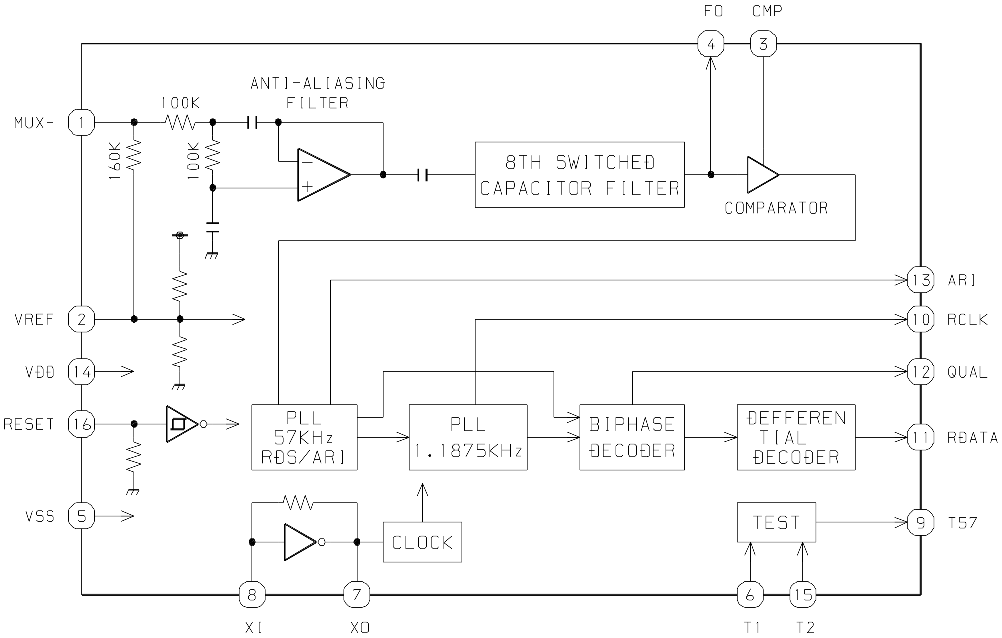
IC, LC72131D


XIN 1
XOUT 22
FMIN 16
AMIN 15
CE 3
DI 4
CL 5
DO 6
VDD 17
VSS 21
18 PD
19 AIN
20 AOUT
12 IF-IN
REFERENCE DIVIDER
PHASE DETECTOR CHARGE PUMP
UNLOCK DETECTOR
1/2
SWALLOW COUNTER 1/16, 1/17 4BITS
12BITS PROGRAMMABLE DIVIDER
C²B I/F
DATA SHIFT REGISTER LATCH
UNIVERSAL COUNTER
POWER ON RESET
7 T-BASE
8 MONO/BEAT
9 FM/SW
10 MW/SW
11 IF-MUTE
13 TUNE

IC, LA1843


AM OSC OUT
AM LO
S-CURVE
AM RF-IN
AM AGC/ FM S-METER
AM DET OUT
FM DET OUT
PLL IN
DET IN
PILOT CANCEL
R-OUT
L-OUT
24
23
22
21
20
19
18
17
16
15
14
13
ALC
AM OSC
BUFF
AM MIX
AM RF.AMP
AGC
AM IF
AM DET
DECODER ANTI-BIRDIE
PILOT CANCAL
P-DET ϕ
STEREO SW
LEVEL DET
S-CURVE
AM/ FM IF BUFF
COMP
VCO 304KHZ
FF 38K
FF 19K∠π/2
FF 19K∠
PILOT DET
FM IF
FM DET
TUNING DRIVE
REG
GND
VC
1
2
3
4
5
6
7
8
9
10
11
12
FM-IN
AM MIX OUT
REG
AM-IN
GND
TUNE
ST
FM-DET
VCC
IF OUT
FM/AM
MONO

IC, BU1920FS


FO
CMP
4
3
MUX-
1
100K
ANTI-ALIASING FILTER
160K
100K
8TH SWITCHED CAPACITOR FILTER
COMPARATOR
13
ARI
VREF
2
10
RCLK
VDD
14
12
QUAL
RESET
16
PLL 57KHz RDS/ARI
PLL 1.1875KHz
BIPHASE DECODER
DEFFEREN TIAL DECODER
11
RDATA
VSS
5
CLOCK
TEST
9
T57
8
7
6
15
XI
XO
T1
T2

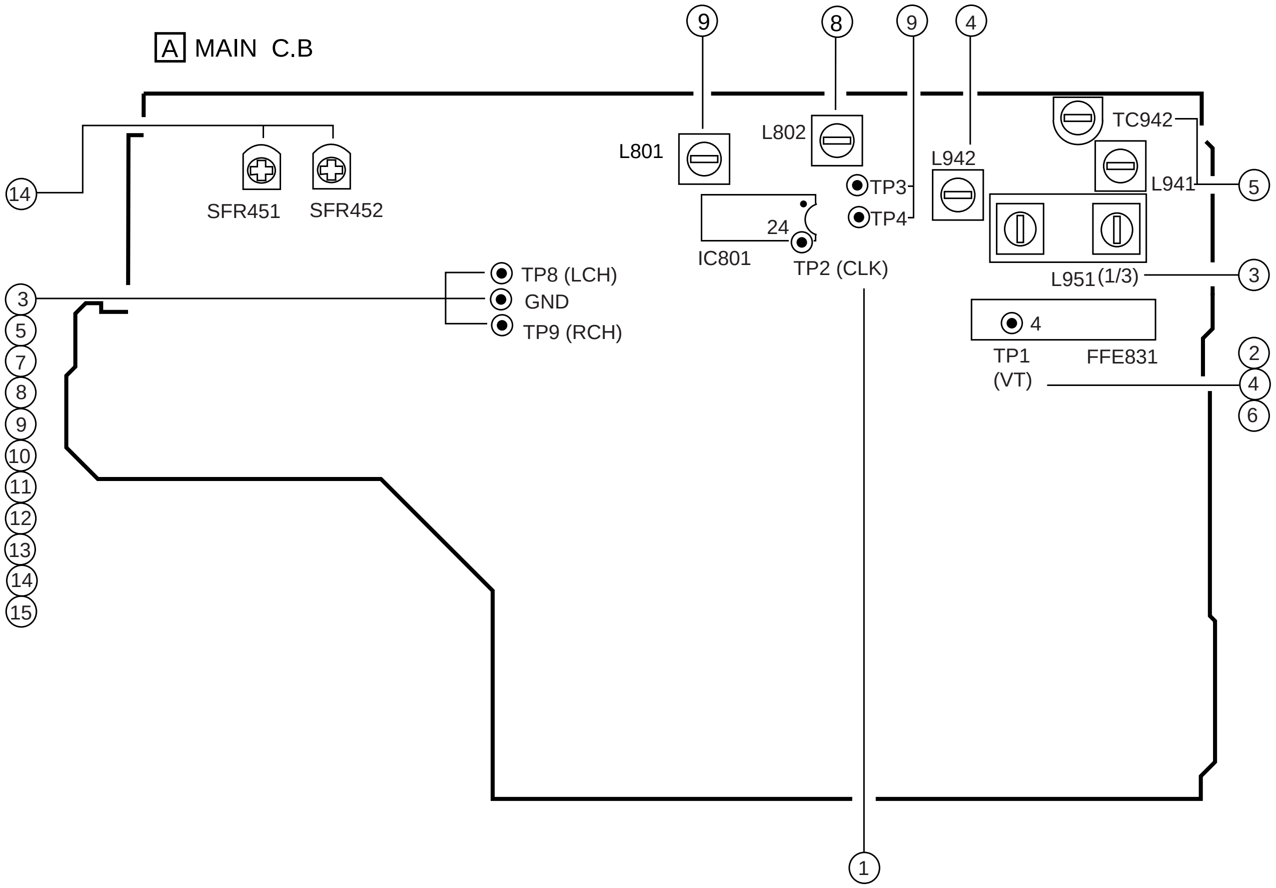
IC DESCRIPTION

IC, M38B59MFH-E251FP

Pin No.	Pin Name	I/O	Description
1	I-SIG	I	RDS signal level A/D input.
2	I-$\overline{\text{HOLD}}$	I	Hold voltage level A/D input.
3	I-CD-SW	I	CD mecha SW A/D input.
4	I-DISH	I	CD turn-table position check A/D input.
5	I-KEY2	I	KEY2 A/D input.
6	I-KEY1	I	KEY1 A/D input.
7	I-RDS-DATA/ O-DATA	I/O	RDS data input / DSP IC data (V-CD) output.
8	O-MOTOR	O	Deck motor supply ON/OFF output.
9	I-RMC	I	System remote control signal input. ("L"=ACTIVE)
10	$\overline{\text{RESET}}$	I	System reset input. ("L"=RESET)
11	I-$\overline{\text{STEREO}}$	I	Tuner stereo input. ("L"=STEREO)
12	O-DSC/ O-PLL DATA	O	Function IC control & PLL data output.
13	VSS	-	GND.
14,15	XIN, XOUT	I/O	4.19MHz system CLK input / output.
16	VCC	-	Power supply input.
17	O-PB1	O	Deck 1/2 switch output. ("L"=PLAYBACK DECK 1)
18	O-$\overline{\text{STBY}}$	O	Standby LED ON/OFF output. ("L"=ON)
19	O-$\overline{\text{RMT}}$	O	REC mute output. ("H"=MUTE)
20	O-$\overline{\text{BIAS}}$	O	Record bias ON/OFF output. ("L"=ON)
21	O-TU-ON	O	Tuner supply ON/OFF output. ("H"=ON)
22	O-CD-ON	O	CD supply ON/OFF output. ("H"= ON)
23	O-$\overline{\text{C.SHIFT}}$	O	MICON clock shift output. ("L"=SHIFT)
24	O-PLL-CLK	O	PLL IC CLK output.
25	I-TM-BASE	I	8 Hz time base input.
26	O-CD-CLOSE	O	CD door close output.
27	O-CD-OPEN	O	CD door open output.
28	VEE	-	Power supply input for FL display.
29	O-STB(DSP)	O	DSP IC strobe output. (Not used)
30	O-KSCAN	O	Initial key scan output.
31	O-PLL-CE	O	CD PLL IC chip enable output.
32	O-CD-LED	O	CD flash window LED output. (Not used)
33~42	G10~G1	O	FL grid output (G10~G1).
43	P22	O	FL segment output (P22). (Not used)
44~58	P21~P7	O	FL segment output (P21~P7).
59	PHONO/P6	I/O	PHONO diode input / FL segment output (P6).
60	DEMO/P5	I/O	CASINO DEMO diode input (Not used) / FL segment output (P5).
61	NON-ECO/P4	I/O	ECO OFF diode input (Not used) / FL segment output (P4).
62	I-TU3/P3	I/O	TU 3 diode input / FL segment output (P3).
63	I-TU2/P2	I/O	TU 2 diode input (Not used) / FL segment output (P2).
64	I-TU1/P1	I/O	TU 1 diode input (Not used) / FL segment output (P1).

Pin No.	Pin Name	I/O	Description
65	O-DISH-R	O	CD turn-table reverse turn output.
66	O-DISH-F	O	CD turn-table forward turn output.
67	I-SUBQ	I	Sub code-Q data input.
68	O-CD-CE	O	CD DSP chip enable output.
69	I-WRQ	I	CD WRQ input.
70	O-CLK (CD)	O	CD control clock output .
71	O-DATA (CD)	O	CD control data output.
72	I-$\overline{\text{TUNE}}$/IFC	I	Tuner SD input / IF count input.
73	AVSS	-	GND.
74	VREF	-	Reference voltage.
75	I-DRF	I	CD DRF input.
76	I-RDS-CLK	I	RDS clock input.
77	I-BLANK SKIP	I	Signal level AD input for CD blank skip only. (Not used)
78	O-POWER	O	SYSTEM Power ON/OFF output. ("H"=ON)
79	I-RE-VOL	I	Rotary encoder A/D input.
80	I-TP-SW	I	Deck mecha SW A/D input.

ADJUSTMENT <TUNER / DECK / FRONT>



< TUNER SECTION >

1. Clock Frequency Check
   Settings : • Test point : TP2 (CLK)
   Method : Set to MW 1602kHz and check that the test point is 2052kHz ± 45Hz.

2. MW VT Check
   Settings : • Test point : TP1 (VT)
   Method : Set to MW 1602kHz and MW 531kHz and check that the test point is less than 8.0V (1602kHz) and more than 0.6V (531kHz).

3. MW Tracking Adjustment
   Settings : • Test point : TP8 (Lch), TP9 (Rch)
   • Adjustment location :
   L951 (1/3) 1000kHz
   Method : Set to MW 999kHz and adjust L951 (1/3) so that the test point is maximum.

4. LW VT Check
   Settings : • Test point : TP1 (VT)
   Method : Set to LW 144kHz and adjust L942 so that the test point becomes 1.3V ± 0.05V. Then set to LW 290kHz and check that the test point is less than 8.0V.

5. LW Tracking Adjustment
   Settings : • Test point : TP8 (Lch), TP9 (Rch)
   • Adjustment location :
   L941 .... 144kHz
   TC942 .... 290kHz
   Method : Set up TC942 to center before adjustment. The level at 144kHz is adjusted to maximum by L941. Then the level at 290kHz is adjusted to maximum by TC942.

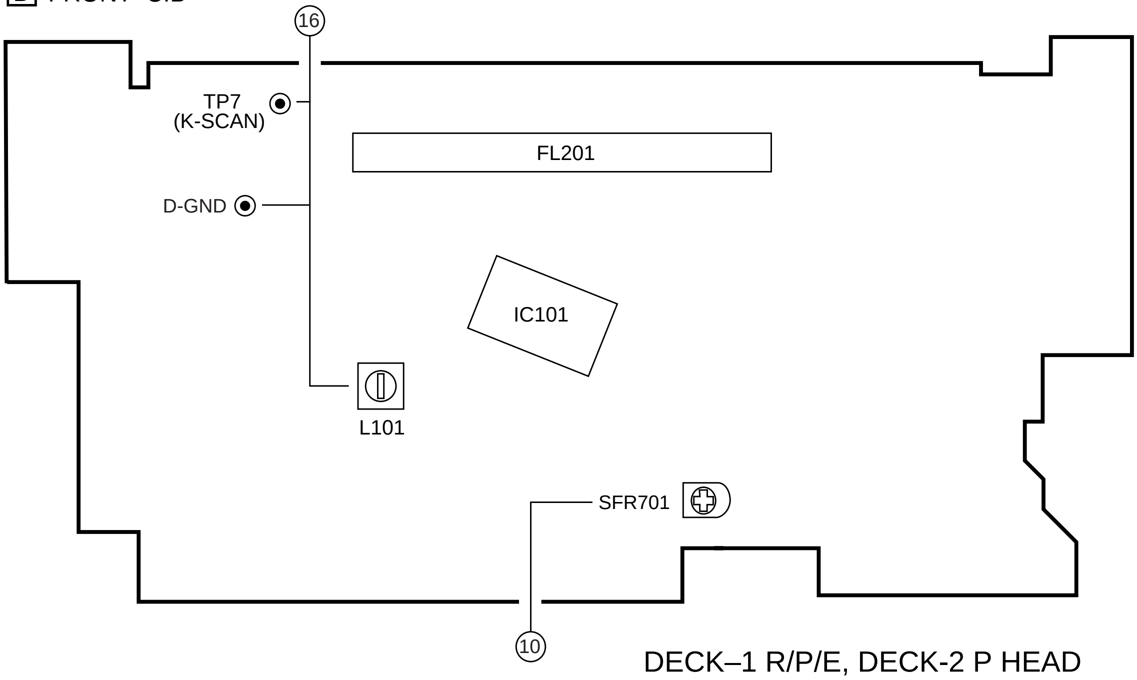
6. FM VT Check
   Settings : • Test point : TP1 (VT)
   Method : Set to FM 108.0MHz and check that the test point is less than 8.0V.
   Set to FM 87.5MHz and check that the test point is more than 0.5V.

7. FM Tracking Check
   Settings : • Test point : TP8 (Lch), TP9 (Rch)
   Method : Set to FM 98.0MHz and check that the test point is less than 13.0dBμV.

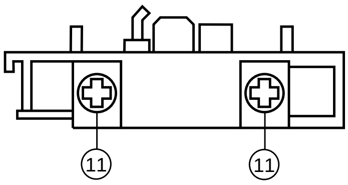
8. AM IF Adjustment
   Settings : • Test point : TP8 (Lch), TP9 (Rch)
   • Adjustment location :
   L802 .... 450kHz

9. DC Balance / Mono Distortion Adjustment
   Settings : • Test point : TP3, TP4 (DC Balance)
   TP8 (Lch), TP9 (Rch) (Distortion)
   • Adjustment location : L801
   • Input level : 60dBμV
   Method : Set to FM 98.0MHz and adjust L801 so that the voltage between TP3 and TP4 becomes 0V ± 300mV. Next, check that the distortion is minimum.

B FRONT C.B



DECK–1 R/P/E, DECK-2 P HEAD



< DECK SECTION >

10. Tape Speed Adjustment (DECK 1)
    Settings : • Test tape : TTA–100
    • Test point : TP8 (Lch), TP9 (Rch)
    • Adjustment location : SFR701
    Method : Play back the test tape and adjust SFR701 so that the frequency counter reads 3000Hz ± 5Hz.

11. Head Azimuth Adjustment (DECK 1, DECK 2)
    Settings : • Test tape : TTA–330
    • Test point : TP8 (Lch), TP9 (Rch)
    • Adjustment location : Head azimuth adjustment screw
    Method : Play back (FWD) the 8kHz signal of the test tape and adjust screw so that the output becomes maximum.

12. PB Frequency Response Check (DECK 1, DECK 2)
    Settings : • Test tape : TTA–330
    • Test point :TP8 (Lch), TP9 (Rch)
    Method : Play back the 315Hz and 8kHz signals of the test tape and check that the output ratio of the 8kHz signal with respect to that of the 315Hz signal is within 5dB.

13. PB Sensitivity Check (DECK 1, DECK 2)
    Settings : • Test tape : TTA–200
    • Test point : TP8 (Lch), TP9 (Rch)
    Method : Play back the test tape and check that the output level of the test point is 140mV ± 3dB.

14. REC/PB Frequency Response Adjustment (DECK 1)
    Settings : • Test tape : TTA–602
    • Test point : TP8 (Lch), TP9 (Rch)
    • Input signal : 1kHz / 8kHz (LINE IN)
    • Adjustment location : SFR451 (Lch)
    SFR452 (Rch)
    Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at the TP8, TP9 becomes -20VU (9~11mV). Record and play back the 1kHz and 8kHz signals and adjust SFRs so that the output of the 8kHz signals becomes 0dB ± 0.5dB with respect to that of the 1kHz signal.

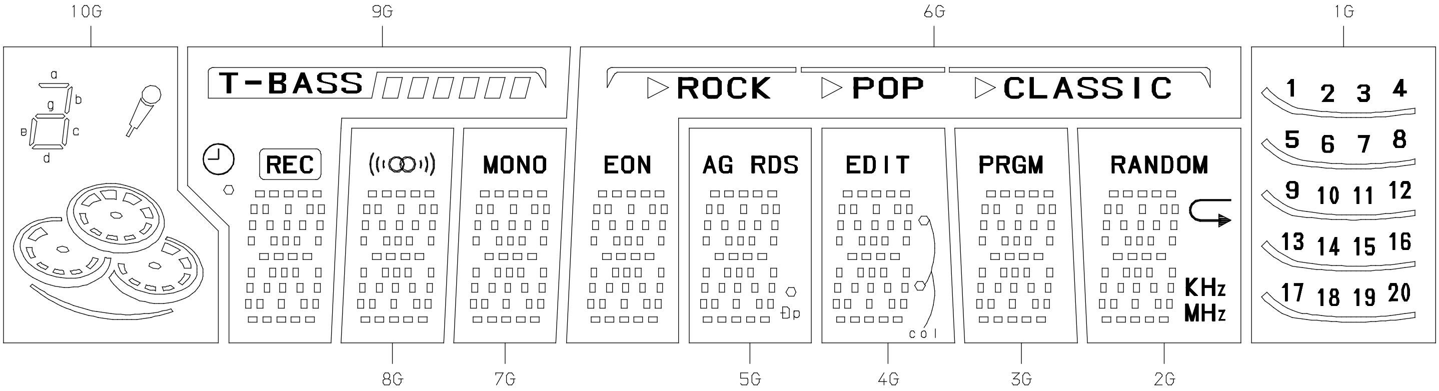
15. REC/PB Sensitivity Check (DECK 1)
    Settings : • Test tape : TTA–602
    • Test point : TP8 (Lch), TP9 (Rch)
    • Input signal : 1kHz (LINE IN)
    Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at TP8, TP9 becomes 0VU (90~110mV). Record and play back the 1kHz signals and check that the output is 0dB ± 3.0dB.

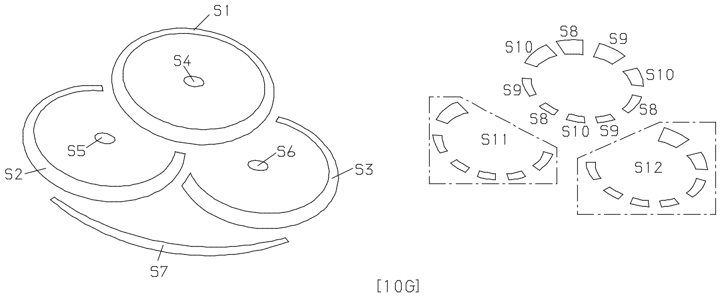
< FRONT SECTION >

16. MICON OSC Adjustment
    Settings : • Test point : TP7 (K-SCAN) and D-GND
    • Adjustment location : L101
    Method : Pull out AC plug, then insert AC plug again with pressing of TUNER function key and POWER key. Adjust L101 so that the frequency across the test point is 58.3525Hz ± 0.058Hz or 17.1372ms ± 0.017ms.

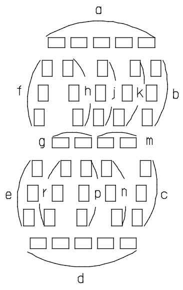
FL (10-BT-224GNK) GRID ASSIGNMENT AND ANODE CONNECTION

GRID ASSIGNMENT

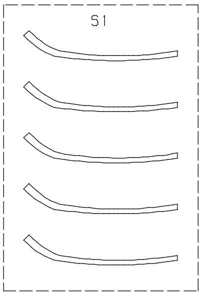

10G
9G
6G
1G
a
b
c
d
e
g
T-BASS
ROCK
POP
CLASSIC
REC
MONO
EON
AG RDS
EDIT
PRGM
RANDOM
KHz
MHz
Đp
col
1 2 3 4
5 6 7 8
9 10 11 12
13 14 15 16
17 18 19 20
8G
7G
5G
4G
3G
2G


S1
S4
S5
S6
S2
S3
S7
S8
S9
S10
S11
S12

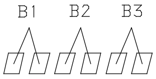
[10G]


a
f
h
j
k
b
g
m
e
r
p
n
c
d

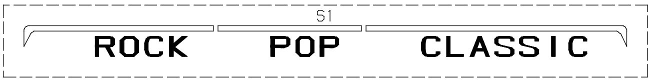
[9G~2G]



[1G]



[9G]

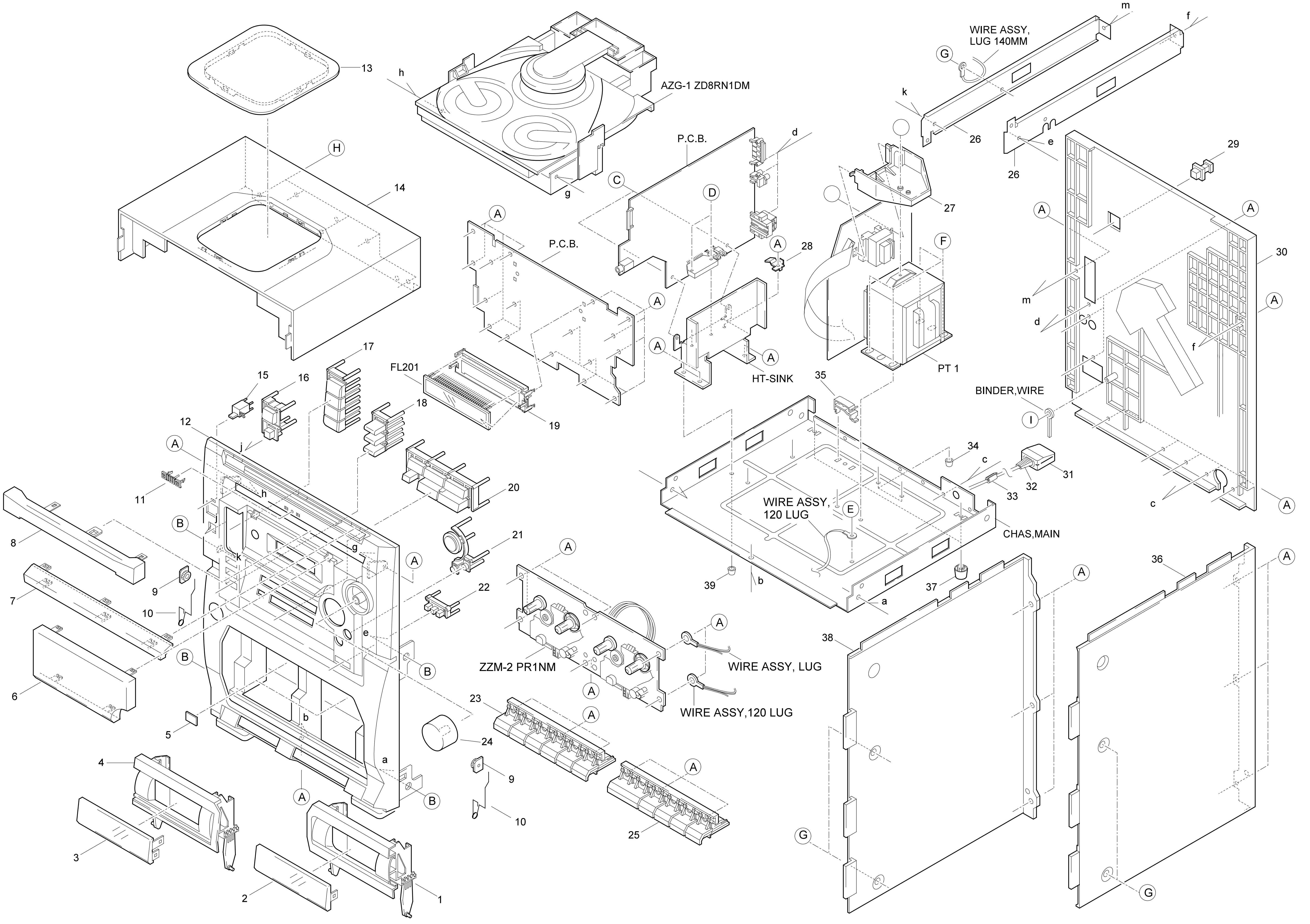

S1
ROCK
POP
CLASSIC

[6G]

ANODE CONNECTION

	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	–	d	d	d	d	d	d	d	d	**20**
P2	S7	n	n	n	n	n	n	n	n	**19**
P3	–	p	p	p	p	p	p	p	p	**18**
P4	S11	r	r	r	r	r	r	r	r	**17**
P5	S5	e	e	e	e	e	e	e	e	**16**
P6	S2	c	c	c	c	c	c	c	c	**15**
P7	S12	g	g	g	g	g	g	g	g	**14**
P8	S6	m	m	m	m	m	m	m	m	**13**
P9	S3	f	f	f	f	f	f	f	f	**12**
P10	S10	b	b	b	b	b	b	b	b	**11**
P11	S9	k	k	k	k	k	k	k	k	**10**
P12	S8	j	j	j	j	j	j	j	j	**9**
P13	S4	h	h	h	h	h	h	h	h	**8**
P14	S1	a	a	a	a	a	a	a	a	**7**
P15	–	◷	((ꝏ))	**MONO**	**EON**	Đp	col (ĐOWN)	–	**MHz**	**6**
P16	–	**REC**	–	–	–	**AG**	col (UP)	–	**KHz**	**5**
P17	🎤	⬡	–	–	▷ (CLASSIC)	**RDS**	**EDIT**	**PRGM**	↪	**4**
P18	a, d, g	**T-BASS**	–	–	▷ (ROCK)	–	–	–	–	**3**
P19	b	B1	–	–	▷ (POP)	–	–	–	–	**2**
P20	c	B2	–	–	S1	–	–	–	**RANDOM**	**1**
P21	e	B3	–	–	–	–	–	–	–	S1

MECHANICAL EXPLODED VIEW 1 / 1


13
14
H
h
AZG-1 ZD8RN1DM
g
P.C.B.
C
D
d
P.C.B.
A
WIRE ASSY,
LUG 140MM
G
k
m
f
26
e
26
27
29
28
F
30
PT 1
HT-SINK
m
d
f
BINDER,WIRE
I
35
17
FL201
15
16
18
19
12
j
11
h
20
8
B
k
g
9
21
7
10
22
e
ZZM-2 PR1NM
WIRE ASSY, LUG
WIRE ASSY,120 LUG
6
B
b
5
23
24
4
a
9
3
10
25
2
1
34
c
31
32
33
c
WIRE ASSY,
120 LUG
E
CHAS,MAIN
39
b
37
a
36
38
G
G

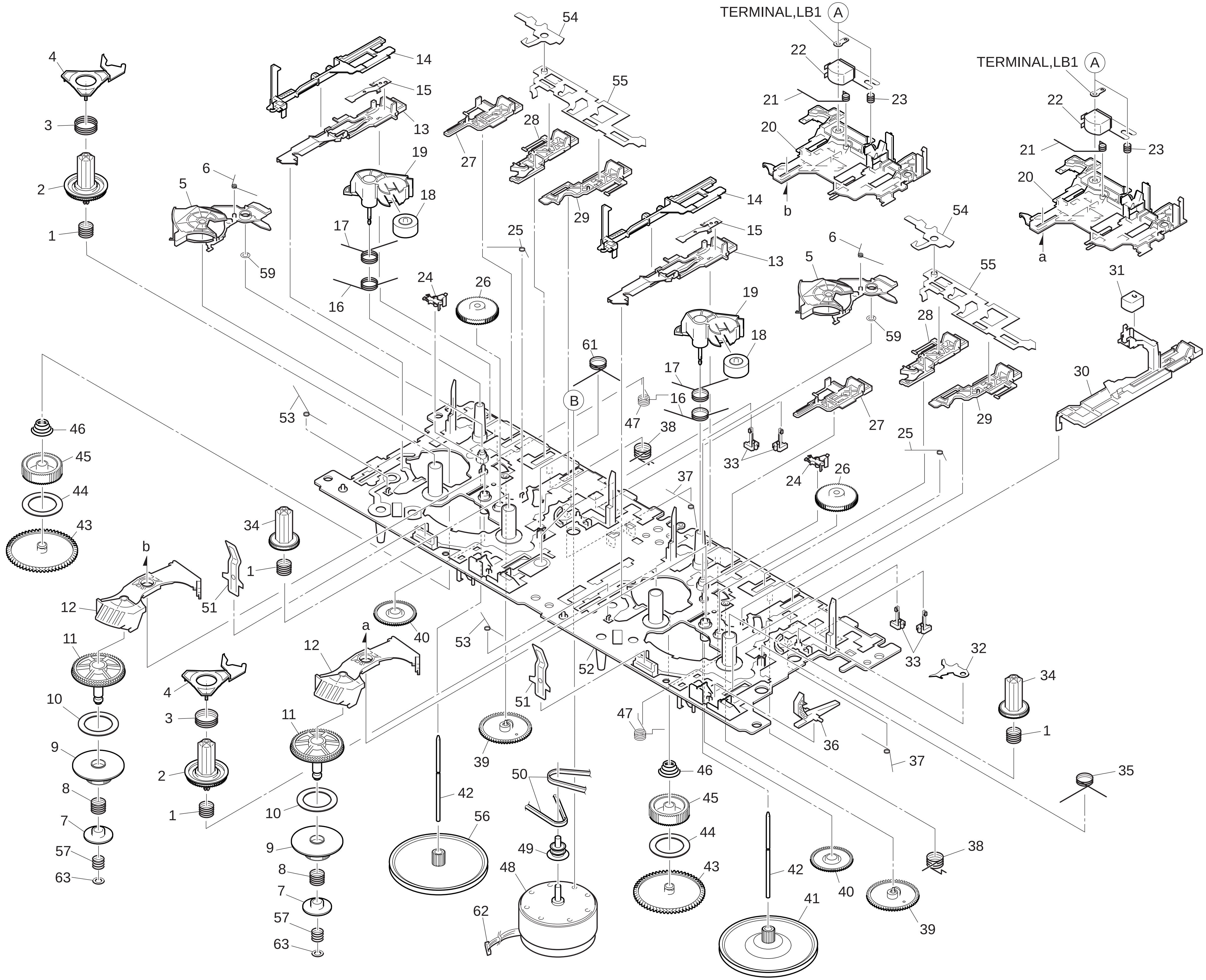
MECHANICAL PARTS LIST 1 / 1

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-MA6-007-010		BOX,CASS R
2	8A-MA6-017-010		WINDOW,CASS R
3	8A-MA6-016-010		WINDOW,CASS L
4	8A-MA6-006-010		BOX,CASS L
5	81-532-080-010		LABEL, CASS. COMPT
6	8A-MA6-013-010		WINDOW,DISP EZ
7	8A-MA6-014-010		WINDOW,CD
8	8A-MA6-011-010		PANEL,CD
9	86-NFZ-231-010		DMPR,70
10	8Z-CL8-209-010		SPR-T,CASS
11	87-B00-002-010		BADGE,AIWA 30 ABS SIL
12	8A-MA6-002-010		CABI,FR EZ
13	8A-MA3-057-010		WINDOW,TOP
14	8A-MA6-018-110		CABI,TOP
15	8A-MA6-032-010		REFLECTOR,POWER
16	8A-MA6-031-010		KEY,POWER
17	8A-MA6-033-010		KEY,FUNCTION
18	8A-MA6-034-110		KEY,GEQ
19	82-NF7-210-110		GUIDE,FL (*)
20	8A-MA6-035-010		KEY,PLAY
21	8A-MA6-036-010		KEY,CD
22	8A-MA6-038-010		KEY,RDS
23	8A-MA6-041-010		KEY,CASS L
24	8A-MA6-039-010		KNOB,RTRY VOL
25	8A-MA6-042-010		KEY,CASS R
26	88-MA1-208-210		JOINT,CABI
27	8A-NF9-211-010		HLDR,PWB PT HI
28	8A-NF8-205-010		HLDR,IC
29	84-ZG1-245-210		CAP,OPTICAL
30	8A-MA6-022-010		CABI,REAR EZ
⚠ 31	87-099-811-010		PLUG,ADPTR CONV(K)<K>
⚠ 32	87-A80-143-010		AC CORD ASSY,E BLK<K>
⚠ 32	87-A80-148-010		AC CORD ASSY,E BLK<EZ>
33	87-085-185-010		BUSHING, AC CORD (E)
34	8Z-NB8-240-010		COVER, PL
35	87-NF4-221-010		HLDR,CABLE
36	8A-MA5-046-010		PANEL,SIDE R 5
37	87-MA3-062-010		FOOT, H17
38	8A-MA5-045-010		PANEL,SIDE L 5
39	8Z-NB8-254-010		COVER, PL M3
A	87-067-703-010		TAPPING SCREW, BVT2+3-10
B	87-591-095-410		TAPPING SCREW, QIT+3-8 (GLD)
C	87-NF4-224-010		S-SCREW,IT3B+3-8 CU
D	87-067-581-010		TAPPING SCREW, BVT2+3-15
E	87-067-688-010		BVTT+3-6
F	87-067-586-010		TAPPING SCREW, BVT2+4-8
G	87-067-641-010		UTT2+3-8(W/O SLOT)BL
H	87-067-758-010		BVT2+3-12 W/O SLOT
I	87-067-579-010		TAPPING SCREW, BVT2+3-8
J	87-067-689-010		TAPPING SCREW, BVTT+3-8

COLOR NAME TABLE

Basic color symbol	Color	Basic color symbol	Color	Basic color symbol	Color
B	Black	C	Cream	D	Orange
G	Green	H	Gray	L	Blue
LT	Transparent Blue	N	Gold	P	Pink
R	Red	S	Silver	ST	Titan Silver
T	Brown	V	Violet	W	White
WT	Transparent White	Y	Yellow	YT	Transparent Yellow
LM	Metallic Blue	LL	Light Blue	GT	Transparent Green
LD	Dark Blue	DT	Transparent Orange	GM	Metallic Green
YM	Metallic Yellow	DM	Metallic Orange		

TAPE MECHANISM EXPLODED VIEW 1 / 1



54
TERMINAL,LB1
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23
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b
TERMINAL,LB1
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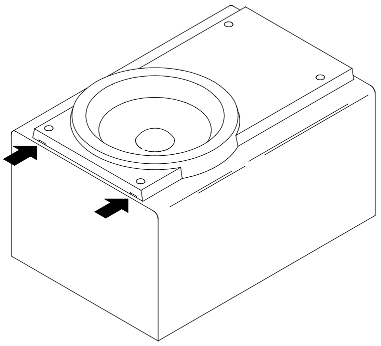
TAPE MECHANISM PARTS LIST 1 / 1

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8Z-ZM1-254-210		SPR-C,REEL R
2	8Z-ZM1-225-110		GEAR,REEL R
3	8Z-ZM1-253-110		SPR-C,AUTO SENSOR
4	8Z-ZM1-217-110		LEVER,AUTO SENSOR
5	8Z-ZM1-212-110		LEVER,T-UP
6	8Z-ZM1-245-010		SPR-T,AUTO
7	8Z-ZM1-236-010		CLR,SLIP FF/REW
8	8Z-ZM1-252-010		SPR-C,FF/REW
9	8Z-ZM1-230-010		GEAR,SLIP FF/REW A
10	8Z-ZM1-269-010		FELT,FF/REW 2
11	8Z-ZM1-238-110		GEAR,SLIP FF/REW B 2
12	8Z-ZM1-237-010		LEVER,FF/REW 2
13	8Z-ZM1-209-210		LEVER,PAUSE
14	8Z-ZM1-218-110		LEVER,E-LOCK H
15	8Z-ZM1-256-010		SPR-P,PAUSE
16	8Z-ZM1-244-010		SPR-T,T-UP
17	8Z-ZM1-247-210		SPR-T,PINCH
18	8Z-ZM1-261-110		ROLLER ASSY,PINCH
19	8Z-ZM1-221-010		LEVER,PINCH
20	8Z-ZM1-205-210		LEVER,PLAY
21	8Z-ZM1-248-110		SPR-T,BRG
22	87-A90-403-110		HEAD,RPH MS15R
23	84-ZM2-227-310		SPR-C,AZIMUTH
24	8Z-ZM1-216-010		LEVER,AUTO
25	8Z-ZM1-246-010		SPR-T,AUTO 2
26	8Z-ZM2-214-010		GEAR,IDL REW ZZM-2
27	8Z-ZM2-212-010		LEVER,STOP ZZM-2
28	8Z-ZM1-207-010		LEVER,FF
29	8Z-ZM1-206-010		LEVER,REW
30	8Z-ZM1-210-010		LEVER,REC
31	87-A90-404-010		HEAD,EH LE15B
32	8Z-ZM2-218-010		LEVER,REC LOCK ZZM-2
33	87-A91-492-010		SW,LEAF MSW18560
34	8Z-ZM1-226-010		GEAR,REEL L
35	8Z-ZM1-241-010		SPR-T,PLAY
36	8Z-ZM1-220-110		LEVER,REC SENSOR
37	8Z-ZM1-249-010		SPR-T,FR
38	8Z-ZM1-242-110		SPR-T,FF/REW
39	8Z-ZM1-229-010		GEAR,CAM
40	8Z-ZM1-232-010		GEAR,IDL FF/REW
41	8Z-ZM1-234-010		FLY-WHL,ZZM-1
42	8Z-ZM1-267-010		SHAFT,CAPSTAN 2
43	8Z-ZM1-228-010		GEAR,SLIP T-UP B
44	8Z-ZM1-265-010		FELT,T-UP
45	8Z-ZM1-227-010		GEAR,SLIP T-UP A
46	8Z-ZM1-251-110		SPR-C,T-UP SLIP
47	8Z-ZM1-243-210		SPR-T,STOP/PAUSE
48	87-A91-532-010		MOT,MS15U2LW1A
49	8Z-ZM1-235-010		PULLEY,MOT
50	8Z-ZM2-216-010		BELT,MAIN M
51	8Z-ZM1-260-010		SPR-P,CASETTE
52	8Z-ZM2-201-010		CHAS ASSY,ZZM-2
53	8Z-ZM1-255-110		SPR-T,E-LOCK
54	8Z-ZM2-219-010		LEVER,E-OPEN ZZM-2
55	8Z-ZM1-214-110		LEVER,LOCK
56	8Z-ZM2-211-010		FLY-WHL,ZZM-2
57	8Z-ZM1-257-110		SPR-C,F/R
59	80-ZM6-243-010		SH 1.75-3.6-0.5 SLT
60	87-A91-494-010		SW,LEAF MSW17820
61	8Z-ZM1-241-010		SPR-T,PLAY
62	8Z-ZM2-601-010		CONN ASSY,9P ZZM-2
63	8Z-ZM1-275-010		W-L,1.47-4-0.25
A	84-ZM2-242-010		S-SCREW,AZ1-2-6.4
B	8Z-ZM2-220-110		V+2.6 ZZM-2

SPEAKER DISASSEMBLY INSTRUCTIONS

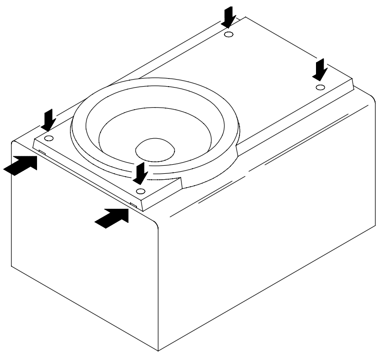
Type.1

Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Remove the screws of each speaker unit and then remove the speaker units.



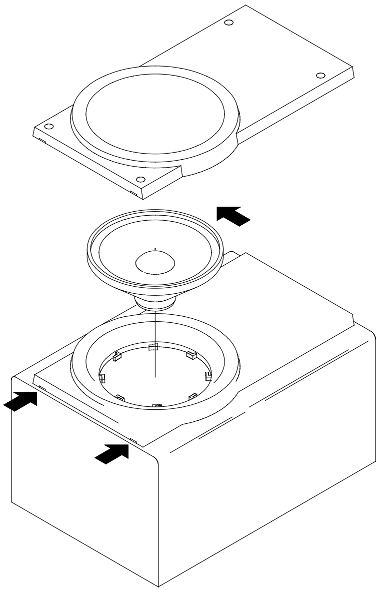
Type.2

Remove the grill frame and four pieces of rubber caps by pulling out with a flat-bladed screwdriver. Remove the screws from hole where installed rubber caps. Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Remove the screws of each speaker unit and then remove the speaker units.

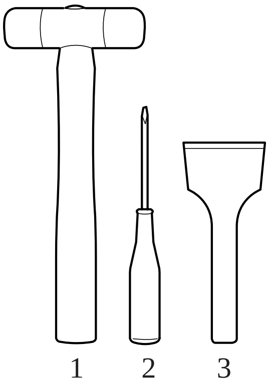


Type.3

Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Turn the speaker unit to counter-clockwise direction while inserting a flat-bladed screwdriver into one of the hollows around speaker unit, and then remove the speaker unit. After replacing the speaker unit, install it turning to clockwise direction until "click" sound comes out.



Type.4



TOOLS

1 Plastic head hammer
2 flat head screwdriver
3 Cut chisel

How to Remove the PANEL, FR

1. Insert the flat head screwdriver tip into the gap between the PANEL, FR and the PANEL, SPKR. Tap the head of the flat head screwdriver with the plastic hammer head, and create the clearance as shown in Fig-1.

2. Insert the cut chisel in the clearance, and tap the head of the cut chisel with plastic hammer as shown in Fig-2, to remove the PANEL, FR.

3. Place the speaker horizontally. Tap head of the cut chisel with plastic hammer as shown in Fig-3, and remove the PANEL, FR completely.

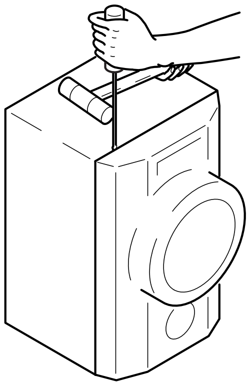


Fig-1

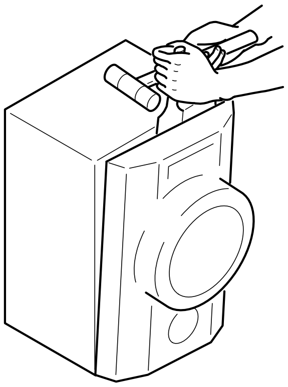


Fig-2

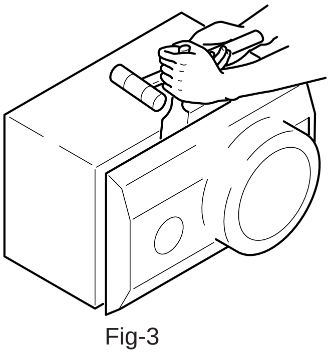


Fig-3

How to Attach the PANEL, FR

Attach the PANEL, FR to the PANEL, SPKR. Tap the four corners of the PANEL, FR with the plastic hammer to fit the PANEL, FR into the PANEL, SPKR completely.

SPEAKER PARTS LIST <SX-ZL100 (YSC)>

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-MSG-002-010		GRILLE,FRAME ASSY
2	83-MSE-605-010		SPKR, CERAMIC
3	88-MSS-603-010		SPKR, W 130
4	88-NS5-605-010		SPKR, T 60

ACCESSORIES / PACKAGE LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-MA6-905-010		IB,K(E)M<K>
1	8A-MA6-906-010		IB,EZ(9L)M<EZ>
2	87-A90-030-010		ANT,LOOP AM-NC C
3	87-A90-118-010		ANT,WIRE FM(Z)
4	8Z-NF9-701-210		RC UNIT,ZAS02

アイワ株式会社 〒110-8710 東京都台東区池之端1-2-11 ☎03(3827)3111（代表）
AIWA CO.,LTD. 2–11, IKENOHATA 1–CHOME, TAITO-KU, TOKYO 110, JAPAN TEL:03 (3827) 3111

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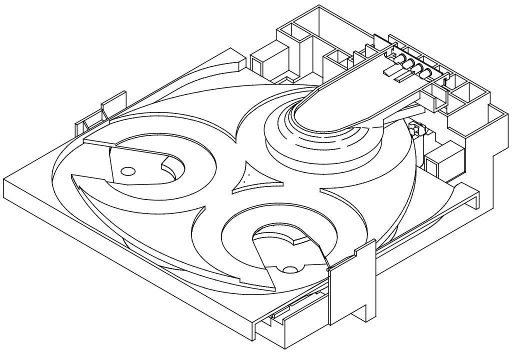
aiwa
SERVICE

AZG-1

English



SERVICE MANUAL

CD-R/RW MECHANISM

BASIC CD MECHANISM:KSM-880CAB

TYPE
ZD8RD
YZD8RMDJM
ZD8RMDJM
ZD8RDNDM
YKZD8RDF
ZD8RDM
YZD8RDM
ZD8RN1DM
YZD8RDJM

aiwa

S/M Code No. 09-001-335-3N6

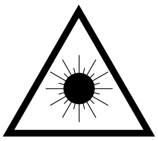
DATA

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.



- Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- Advarsel: Usynling laserståling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

VAROITUS!

Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyt-täjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

VARNING!

Om apparaten används på annat sätt än vad som specificeras i denna bruksanvising, kan användaren utsättas för osynling laserstrålning, som överskrider gränsen för laserklass 1.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

ATTENTION

L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

ADVARSEL!

Usynlig laserståling ved åbning, når sikkerhedsafbrydereer ude af funktion. Undgå udsættelse for stråling.

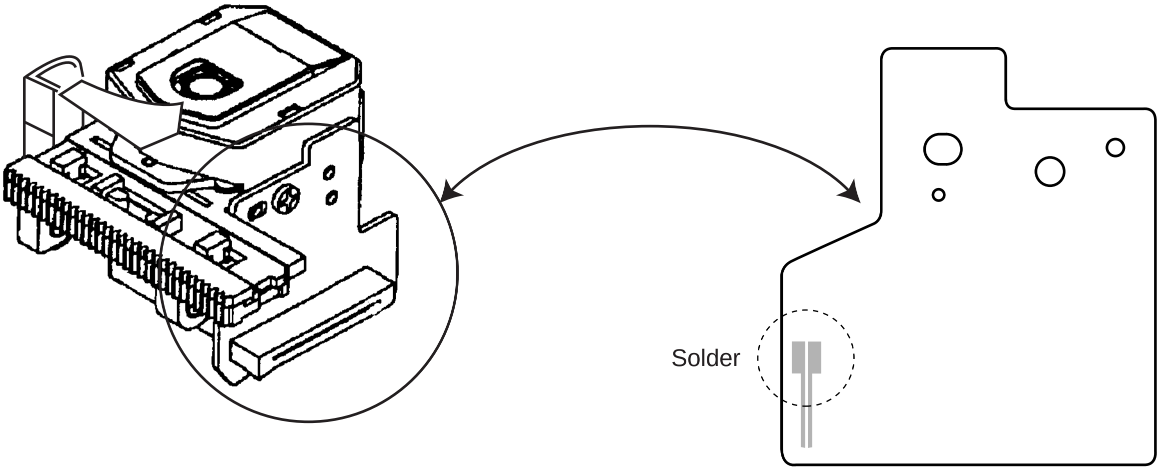
This Compact Disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the rear exterior.

CLASS 1	LASER PRODUCT
KLASSE 1	LASER PRODUKT
LUOKAN 1	LASER LAITE
KLASS 1	LASER APPARAT

Precaution to replace Optical block

Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use care the clothes do not touch the diode.

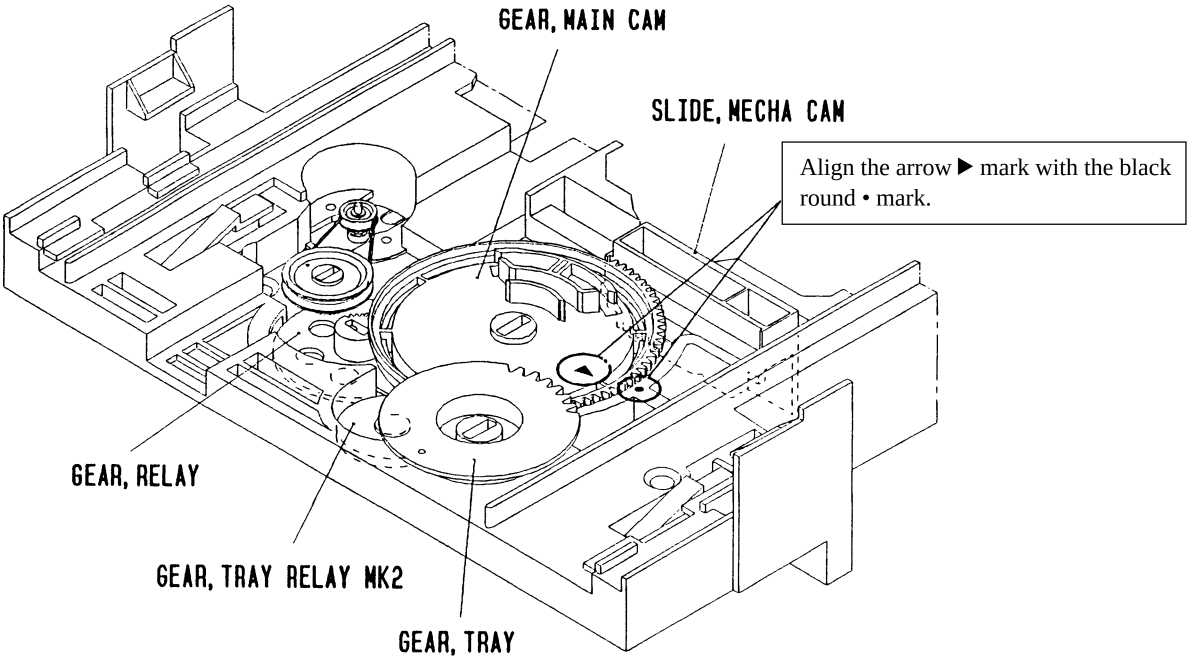
1) After the connection, remove solder shown in the figure below.



How to Adjust the Rotating Phase of the Gear, Main Cam

1) Push down the hooking catch of the CHAS. MECH, and remove the TRAY.
2) Align the arrow mark of the Gear, Main Cam with the black round mark of the CHAS, MECHA as shown below.
3) Confirm that the Slide, Mech Cam is located in the right position, then insert the TRAY gently.

Caution: If the rotating phase of the Gear, Main Cam is incorrectly adjusted, the chucking operation and tray movement will have malfunction.


GEAR, MAIN CAM
SLIDE, MECHA CAM
GEAR, RELAY
GEAR, TRAY RELAY MK2
GEAR, TRAY

Align the arrow ▶ mark with the black round • mark.

ELECTRICAL MAIN PARTS LIST

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

IC

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
	87-A21-381-040		C-IC,LA9235M
	87-A21-556-010		C-IC,LC78641E
	87-A21-414-010		IC,BA5927S

TRANSISTOR

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
	87-026-609-080		TR,KTA1266GR
	87-A30-076-080		C-TR,2SC3052F
	87-A30-497-080		TR,2SA1980Y/G
	87-A30-087-080		C-FET,2SK2158
	87-026-237-080		CHIP-TR,DTC124XK <EXCEPT ZD8RN1DM,YZD8RDM>
	87-A30-075-080		C-TR,2SA1235F

DIODE

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
	87-A40-270-080		C-DIODE,MC2838
	87-070-136-080		ZENER,MTZJ5.1B
	87-A40-003-080		ZENER,MTZJ4.3A
	87-A40-337-080		ZENER,MTZJ6.8B
	87-A40-313-080		C-DIODE,MC2840

3CD C.B

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
C1	87-010-374-080		CAP,E 47-10
C2	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
C2	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C3	87-010-260-080		CAP, ELECT 47-25V
C4	87-010-260-080		CAP, ELECT 47-25V
C5	87-010-197-020		CHIP CAPACITOR,0.01-25 <EXCEPT YKZD88RDF,ZD8RD>
C5	87-010-197-080		CHIP CAPACITOR,0.01-25 <YKZD88RDF,ZD8RD>
C6	87-010-405-080		CAP, ELECT 10-50V
C7	87-010-263-080		CAP, ELECT 100-10V
C8	87-012-349-080		C-CAP,S 1000P-50 CH
C10	87-010-546-080		CAP,E 0.33-50
C11	87-010-401-080		CAP, ELECT 1-50V
C13	87-010-321-020		C-CAP,S 82P-50 CH <EXCEPT YKZD88RDF,ZD8RD>
C13	87-010-321-080		C-CAP,S 82P-50 J CH <YKZD88RDF,ZD8RD>
C15	87-010-197-020		CHIP CAPACITOR,0.01-25 <EXCEPT YKZD88RDF,ZD8RD>
C15	87-010-197-080		CHIP CAPACITOR,0.01-25 <YKZD88RDF,ZD8RD>
C16	87-010-260-080		CAP, ELECT 47-25V
C101	87-010-992-080		C-CAP,S 0.047-25 B
C102	87-010-401-080		CAP, ELECT 1-50V
C103	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
C103	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C104	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
C104	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C105	87-010-260-080		CAP, ELECT 47-25V
C106	87-010-322-020		C-CAP,S 100P-50 CH <EXCEPT YKZD88RDF,ZD8RD>
C106	87-010-322-080		C-CAP,S 100P-50 CH <YKZD88RDF,ZD8RD>
C107	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
C107	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C108	87-010-186-080		CAP,CHIP 4700P<YKZD88RDF,ZD8RD>
C108	87-010-186-020		CAP,CHIP 4700P <EXCEPT YKZD88RDF,ZD8RD>
C109	87-010-992-080		C-CAP,S 0.047-25 B
C110	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C110	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
C111	87-010-260-080		CAP, ELECT 47-25V
C112	87-010-197-020		CHIP CAPACITOR,0.01-25 <EXCEPT YKZD88RDF,ZD8RD>
C112	87-010-197-080		CHIP CAPACITOR,0.01-25 <YKZD88RDF,ZD8RD>
C114	87-010-260-080		CAP, ELECT 47-25V
C115	87-010-197-080		CHIP CAPACITOR,0.01-25 <YKZD88RDF,ZD8RD>
C115	87-010-197-020		CHIP CAPACITOR,0.01-25 <EXCEPT YKZD88RDF,ZD8RD>
C116	87-010-260-080		CAP, ELECT 47-25V
C117	87-010-197-080		CHIP CAPACITOR,0.01-25 <YKZD88RDF,ZD8RD>
C117	87-010-197-020		CHIP CAPACITOR,0.01-25 <EXCEPT YKZD88RDF,ZD8RD>
C118	87-010-260-080		CAP, ELECT 47-25V
C119	87-015-819-080		
C120	87-010-312-080		C-CAP,S 15P-50 CH <YKZD88RDF,ZD8RD>
C120	87-010-312-020		C-CAP,S 15P-50 CH <EXCEPT YKZD88RDF,ZD8RD>
C121	87-010-312-020		C-CAP,S 15P-50 CH <EXCEPT YKZD88RDF,ZD8RD>
C121	87-010-312-080		C-CAP,S 15P-50 CH <YKZD88RDF,ZD8RD>
C122	87-010-404-080		CAP, ELECT 4.7-50V
C123	87-010-197-020		CHIP CAPACITOR,0.01-25 <EXCEPT YKZD88RDF,ZD8RD>
C123	87-010-197-080		CHIP CAPACITOR,0.01-25 <YKZD88RDF,ZD8RD>
C124	87-010-401-080		CAP, ELECT 1-50V
C126	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
C126	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C128	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
C128	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C130	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C130	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
C132	87-010-405-080		CAP, ELECT 10-50V
C133	87-010-314-020		C-CAP,S 22P-50V <EXCEPT YKZD88RDF,ZD8RD>
C133	87-010-314-080		C-CAP,S 22P-50V<YKZD88RDF,ZD8RD>
C135	87-A11-088-080		CAP,TC U 100P-50 J CH
C151	87-010-405-080		CAP, ELECT 10-50V
C152	87-010-405-080		CAP, ELECT 10-50V
C192	87-012-349-080		C-CAP,S 1000P-50 CH
C193	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C193	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
C201	87-A10-730-080		CAP,E 1000-16 SMG
C202	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C202	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
C204	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
C204	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C205	87-010-405-080		CAP, ELECT 10-50V
C206	87-010-405-080		CAP, ELECT 10-50V
C207	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
C207	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C301	87-010-382-080		CAP, ELECT 22-25V
C302	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
C302	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C303	87-010-260-080		CAP, ELECT 47-25V
C401	87-010-322-020		C-CAP,S 100P-50 CH <EXCEPT YKZD88RDF,ZD8RD>
C401	87-010-322-080		C-CAP,S 100P-50 CH <YKZD88RDF,ZD8RD>
C402	87-010-322-020		C-CAP,S 100P-50 CH <EXCEPT YKZD88RDF,ZD8RD>
C402	87-010-322-080		C-CAP,S 100P-50 CH <YKZD88RDF,ZD8RD>
C403	87-010-322-020		C-CAP,S 100P-50 CH <EXCEPT YKZD88RDF,ZD8RD>
C403	87-010-322-080		C-CAP,S 100P-50 CH <YKZD88RDF,ZD8RD>
C404	87-010-322-080		C-CAP,S 100P-50 CH <YKZD88RDF,ZD8RD>
C404	87-010-322-020		C-CAP,S 100P-50 CH <EXCEPT YKZD88RDF,ZD8RD>
C405	87-010-322-020		C-CAP,S 100P-50 CH <EXCEPT YKZD88RDF,ZD8RD>
C405	87-010-322-080		C-CAP,S 100P-50 CH <YKZD88RDF,ZD8RD>
C406	87-010-322-020		C-CAP,S 100P-50 CH <EXCEPT YKZD88RDF,ZD8RD>
C406	87-010-322-080		C-CAP,S 100P-50 CH <YKZD88RDF,ZD8RD>
C407	87-010-405-080		CAP, ELECT 10-50V
C454	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
C454	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C601	87-010-260-080		CAP, ELECT 47-25V
C602	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C602	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
CN1	87-A60-429-010		CONN,16P H TOC-A
CN201	84-ZG1-648-010		CONN ASSY,6P

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
CN202	87-A60-130-010		CONN,5P V
CN501	84-ZG1-647-010		CONN ASSY,2P <EXCEPT ZD8RN1DM,ZD8RNDM>
CN601	87-009-345-010		CONN,2P PH V <EXCEPT ZD8RN1DM,ZD8RDM,YZD8RDM,ZD8RNDM>
CON401	87-099-030-010		CONN,13P 6216H
FB601	87-008-372-080		FLTR,EMI BL01 RN1 <EXCEPT ZD8RN1DM,ZD8RDM,YZD8RDM,ZD8RNDM>
FB602	87-008-372-080		FLTR,EMI BL01 RN1
LED601	87-A40-558-010		LED,SLZ-8128A-01-A
M201	87-045-305-010		MOTOR, RF-500TB DC-5V (2MA)
SW201	87-036-109-010		SW,MICRO SPPB61
SW202	87-036-109-010		SW,MICRO SPPB61
X101	87-A70-046-010		VIB,XTAL 16.934MHZ

LED. C.B

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
LED501	87-A40-263-080		LED,SLH-56PCT31 GRN <EXCEPT ZD8RN1DM,ZD8RNDM>
LED502	87-A40-263-080		LED,SLH-56PCT31 GRN <EXCEPT ZD8RN1DM,ZD8RNDM>
LED503	87-A40-268-080		LED,SLH-56DCT31 ORN <EXCEPT ZD8RN1DM,ZD8RNDM>
LED504	87-A40-268-080		LED,SLH-56DCT31 ORN <EXCEPT ZD8RN1DM,ZD8RNDM>

T-T C.B

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
C401	87-018-214-080		CAP TC U 0.1-50F
CON401	86-NFZ-675-010		CONN,5P H 6216-11H
M401	87-045-364-010		MOTOR(BCH3B14)
PS401	87-026-573-010		SNSR,PHOTO GP1S53V

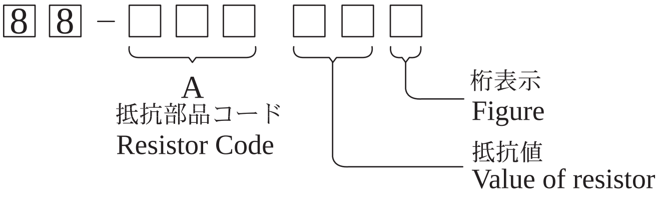
MOTOR C.B

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
PIN3	91-564-722-110		CONN,PIN 6P
SW1	91-572-085-110		LEAF SWITCH

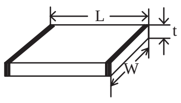
- Regarding connectors, they are not stocked as they are not the initial order items.
  The connectors are available after they are supplied from connector manufacturers upon the order is received.

○チップ抵抗部品コード／CHIP RESISTOR PART CODE

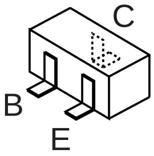
チップ抵抗部品コードの成り立ち
Chip Resistor Part Coding



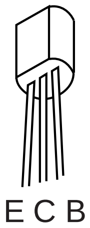
チップ抵抗
Chip resistor

容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm) 外形／Form	L	W	t	抵抗コード : A Resistor Code : A
1/16W	1005	± 5%	CJ		1.0	0.5	0.35	104
1/16W	1608	± 5%	CJ		1.6	0.8	0.45	108
1/10W	2125	± 5%	CJ		2	1.25	0.45	118
1/8W	3216	± 5%	CJ		3.2	1.6	0.55	128

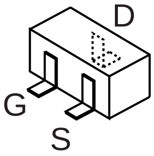
TRANSISTOR ILLUSTRATION



2SA1235F
2SC3052F
DTC124XK

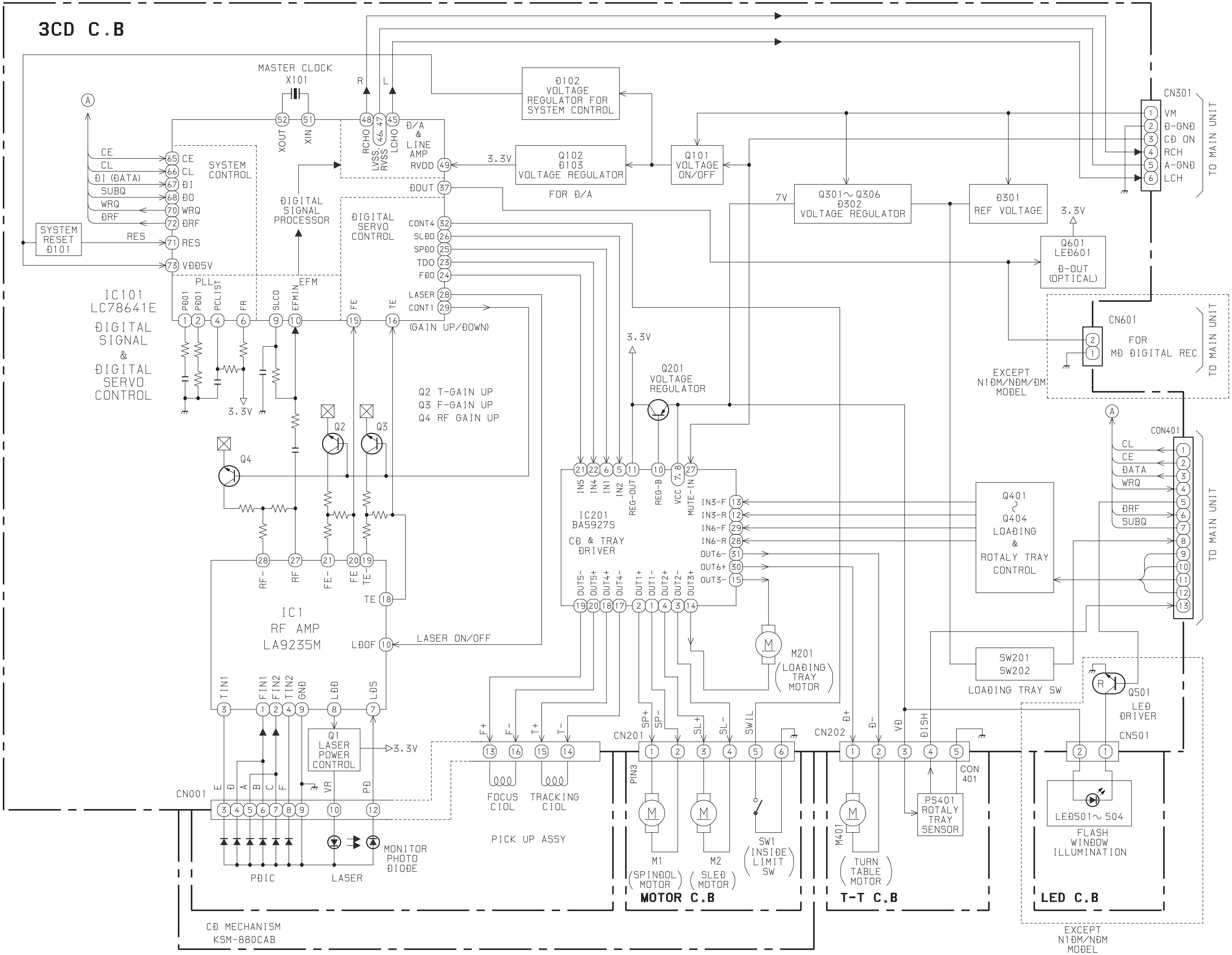


2SA1980Y/G
KTA1266GR

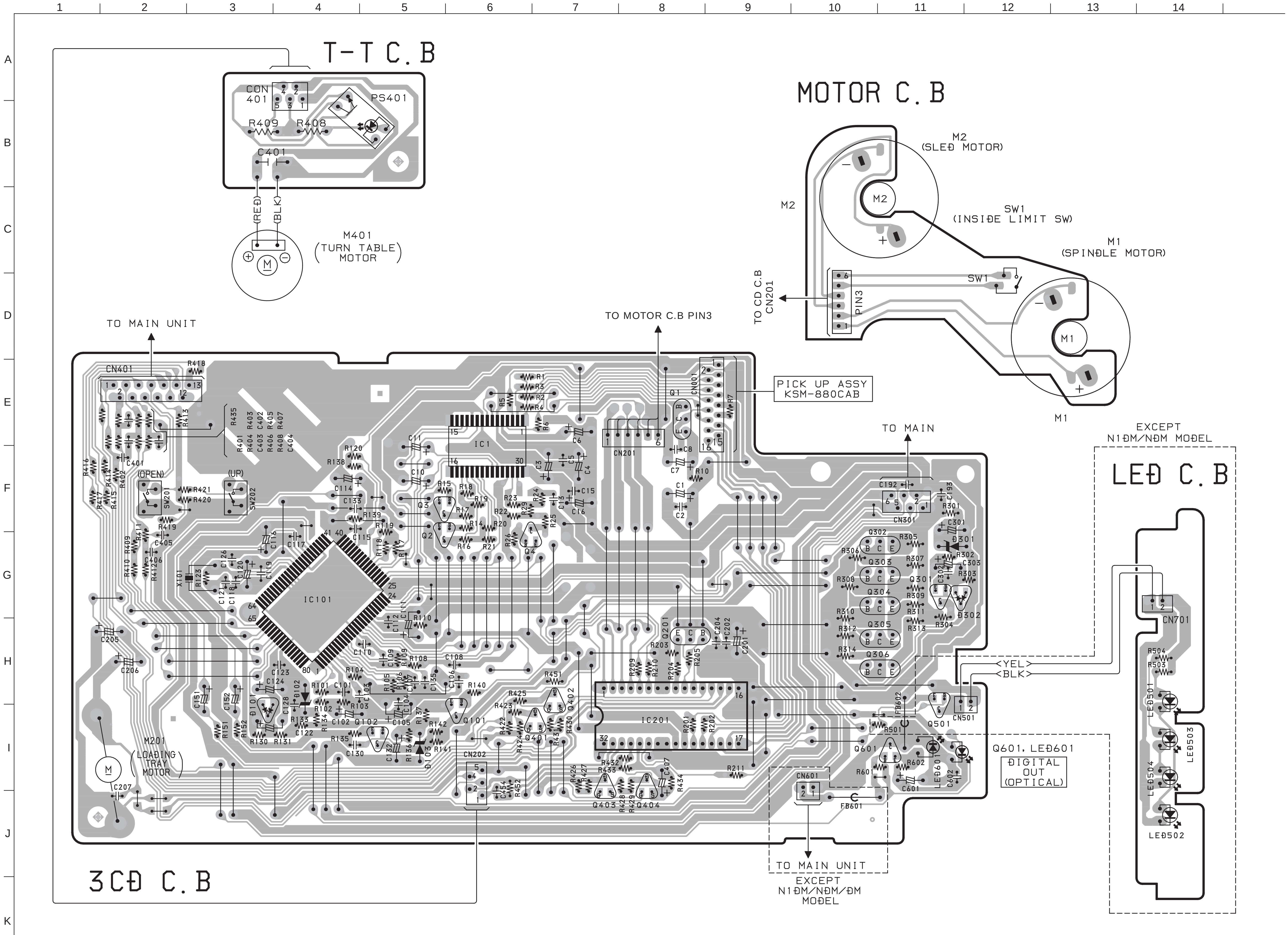


2SK2158

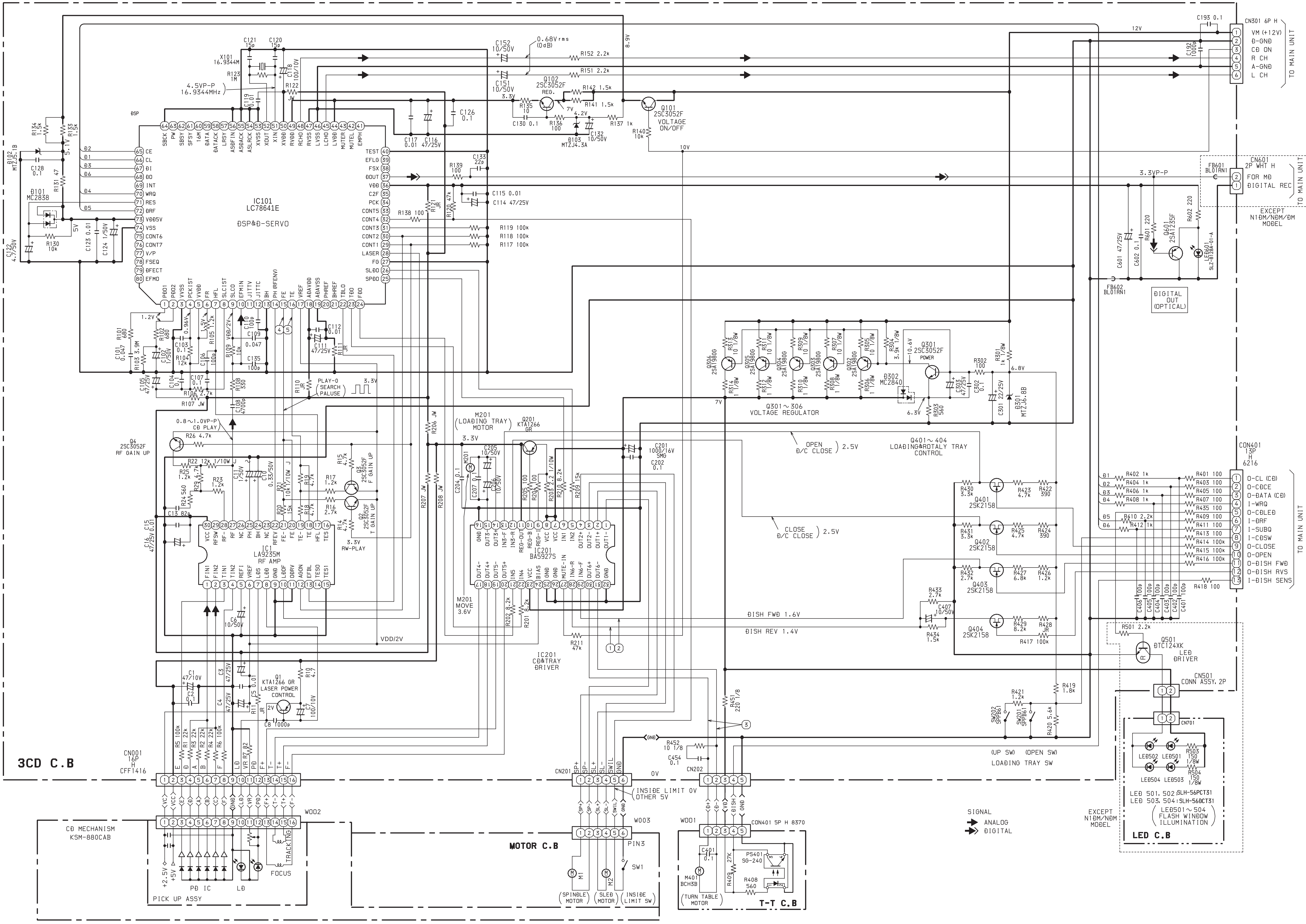
BLOCK DIAGRAM


3CD C.B
MASTER CLOCK
X101
A
SYSTEM CONTROL
CE
CL
ĐI (DATA)
SUBQ
WRQ
ĐRF
SYSTEM RESET Đ101
RES
65 CE
66 CL
67 ĐI
68 ĐO
70 WRQ
72 ĐRF
71 RES
73 VĐĐ5V
52 XOUT
51 XIN
R
L
48 RCHO
46, 47 LVSS, RVSS
45 LCHO
Đ/A & LINE AMP
49 RVDD
ĐIGITAL SIGNAL PROCESSOR
ĐIGITAL SERVO CONTROL
37 ĐOUT
32 CONT4
26 SLĐO
25 SPĐO
23 TĐO
24 FĐO
28 LASER
29 CONT1
(GAIN UP/ĐOWN)
PLL
EFM
1 PĐO1
2 PĐO1
4 PCLIST
6 FR
9 SLCO
10 EFMIN
15 FE
16 TE
IC101
LC78641E
ĐIGITAL SIGNAL & ĐIGITAL SERVO CONTROL
3.3V
Q2 T-GAIN UP
Q3 F-GAIN UP
Q4 RF GAIN UP
Q2
Q3
Q4
28 RF-
27 RF
21 FE-
20 FE
19 TE-
18 TE
IC1
RF AMP
LA9235M
10 LĐOF
LASER ON/OFF
3 TIN1
1 FIN1
2 FIN2
4 TIN2
9 GNĐ
8 LĐĐ
7 LĐS
Q1 LASER POWER CONTROL
3.3V
CN001
E
Đ
A
B
C
F
VR
PĐ
3 4 5 6 7 8 9 10 12
PĐIC
LASER
MONITOR PHOTO ĐIOĐE
CĐ MECHANISM
KSM-880CAB
Đ102 VOLTAGE REGULATOR FOR SYSTEM CONTROL
3.3V
Q102 Đ103 VOLTAGE REGULATOR
FOR Đ/A
Q101 VOLTAGE ON/OFF
7V
Q301～Q306 Đ302 VOLTAGE REGULATOR
Đ301 REF VOLTAGE
3.3V
Q601 LEĐ601
Đ-OUT (OPTICAL)
CN301
1 VM
2 Đ-GNĐ
3 CĐ ON
4 RCH
5 A-GNĐ
6 LCH
TO MAIN UNIT
CN601
2
1
FOR MĐ ĐIGITAL REC
TO MAIN UNIT
EXCEPT N1ĐM/NĐM/ĐM MODEL
3.3V
Q201 VOLTAGE REGULATOR
21 IN5
22 IN4
6 IN1
5 IN2
11 REG-OUT
10 REG-B
7, 8 VCC
27 MUTE-IN
IC201
BA5927S
CĐ & TRAY ĐRIVER
13 IN3-F
12 IN3-R
29 IN6-F
28 IN6-R
31 OUT6-
30 OUT6+
15 OUT3-
19 OUT5-
20 OUT5+
18 OUT4+
17 OUT4-
2 OUT1+
1 OUT1-
4 OUT2+
3 OUT2-
14 OUT3+
M201 (LOAĐING TRAY MOTOR)
Q401 ～ Q404 LOAĐING & ROTALY TRAY CONTROL
SW201 SW202
LOAĐING TRAY SW
A
CON401
CL
CE
ĐATA
WRQ
ĐRF
SUBQ
1 2 3 4 5 6 7 8 9 10 11 12 13
TO MAIN UNIT
Q501 LEĐ ĐRIVER
R
F+
F-
T+
T-
13 16 15 14
FOCUS CIOL
TRACKING CIOL
PICK UP ASSY
CN201
SP+
SP-
SL+
SL-
SWIL
1 2 3 4 5 6
PIN3
M
M1 (SPINĐOL MOTOR)
M2 (SLEĐ MOTOR)
SW1 (INSIĐE LIMIT SW)
MOTOR C.B
CN202
Đ+
Đ-
VĐ
ĐISH
1 2 3 4 5
CON 401
M401
TURN TABLE MOTOR
PS401 ROTALY TRAY SENSOR
T-T C.B
CN501
2 1
LEĐ501～504
FLASH WINDOW ILLUMINATION
LEĐ C.B
EXCEPT N1ĐM/NĐM MODEL

WIRING


T-T C.B
CON 401
PS401
R409
R408
C401
(RED)
(BLK)
M401
(TURN TABLE MOTOR)
MOTOR C.B
M2
(SLED MOTOR)
SW1
(INSIDE LIMIT SW)
M1
(SPINDLE MOTOR)
TO CD C.B CN201
PIN3
TO MAIN UNIT
TO MOTOR C.B PIN3
PICK UP ASSY
KSM-880CAB
CN401
CN001
CN201
IC1
IC101
IC201
CN202
CN301
TO MAIN
EXCEPT N1DM/NDM MODEL
LED C.B
CN701
LED501
LED502
LED503
LED504
YEL
BLK
CN501
Q501
Q601
LED601
Q601, LED601
DIGITAL OUT (OPTICAL)
CN601
FB601
FB602
TO MAIN UNIT
EXCEPT N1DM/NDM/DM MODEL
M201
LOADING TRAY MOTOR
SW201
SW202
(OPEN)
(UP)
X101
3CD C.B

SCHEMATIC DIAGRAM


IC101
LC78641E
DSP&D-SERVO
IC1
LA9235M
RF AMP
IC201
BA5927S
IC201
CD&TRAY
DRIVER
Q101
2SC3052F
VOLTAGE
ON/OFF
Q102
2SC3052F
REG.
Q301~306
VOLTAGE REGULATOR
Q301
2SC3052F
POWER
D302
MC2840
Q401~404
LOADING&ROTALY TRAY
CONTROL
Q401
2SK2158
Q402
2SK2158
Q403
2SK2158
Q404
2SK2158
Q601
2SA1235F
Q501
DTC124XK
LED
DRIVER
Q1
KTA1266 GR
LASER POWER
CONTROL
Q2
2SC3052F
F GAIN UP
Q3
2SC3052F
T GAIN UP
Q4
2SC3052F
RF GAIN UP
Q201
KTA1266
GR
M201
LOADING TRAY
MOTOR
M201
MOVE
3.6V
X101
16.9344M
4.5VP-P
16.9344MHz
0.68Vrms
(0dB)
0.8~1.0VP-P
CD PLAY
PLAY-0
SEARCH
PALUSE
3.3V
3.3V
RW-PLAY
VDD/2V
OPEN
D/C CLOSE 2.5V
CLOSE
D/C CLOSE 2.5V
DISH FWD 1.6V
DISH REV 1.4V
CN301 6P H
VM (+12V)
D-GND
CD ON
R CH
A-GND
L CH
TO MAIN UNIT
CN601
2P WHT H
FOR MD
DIGITAL REC
TO MAIN UNIT
EXCEPT
N1DM/NDM/DM
MODEL
DIGITAL
OUT
(OPTICAL)
3.3VP-P
CON401
13P
H
6216
O-CL (CD)
O-CDCE
O-DATA (CD)
I-WRQ
O-CDLED
I-DRF
I-SUBQ
I-CDSW
O-CLOSE
O-OPEN
O-DISH FWD
O-DISH RVS
I-DISH SENS
TO MAIN UNIT
CN501
CONN ASSY, 2P
CN701
LED502 LED501
LED504 LED503
LED 501, 502:SLH-56PCT31
LED 503, 504:SLH-56DCT31
(LED501~504
FLASH WINDOW
ILLUMINATION)
LED C.B
EXCEPT
N1DM/NDM
MODEL
SIGNAL
ANALOG
DIGITAL
(UP SW) (OPEN SW)
LOADING TRAY SW
3CD C.B
CN001
16P
H
CFF1416
CN201
CN202
INSIDE LIMIT 0V
OTHER 5V
W002
W003
W001
CON401 5P H 8370
CD MECHANISM
KSM-880CAB
PICK UP ASSY
PD IC
LD
FOCUS
TRACKING
MOTOR C.B
PIN3
SW1
M1
M2
(SPINDLE MOTOR)
(SLED MOTOR)
(INSIDE LIMIT SW)
M401
BCH3B
(TURN TABLE MOTOR)
PS401
SG-240
T-T C.B

TEST MODE

1. How to Start the CD Test Mode

While pressing the CD function key, connect the AC power plug to wall outlet.
The test mode starts up and “CD TEST” appears on the display.

2. How to Exit the CD Test Mode

Press the POWER button or disconnect the AC power plug from wall outlet.
* When any function key other than PLAY is pressed during playback, the test mode is canceled.

3. Function and Use of the CD Test Mode

NO	MODE	How to enter the mode	Display	Operation	Check item
1	Start mode		All indicators turn on	• All FL all ndicators turn on	• FL check • Microprocessor check
2	Search mode	STOP button	CD	• LD turns on all the time • Focus search continuos operation *1 • Spindle motor continuos kick	• APC circuit check • Laser current measurement • Focus search waveform check • Focus error waveform check (Ignores DRF during search mode)
3	Play mode	PLAY button	Normal	• Normal playback • Focus search is continued if failed in TOC READ.	• Each servo circuit is checked • DRF check
4	Traverse mode	PAUSE button	Normal	• Tracking servo OFF/ON Repeats OFF/ON every time the PAUSE button is pressed	• Tracking balance check
5	Sled mode	FF button	CD TEST	• Moves PU to inner circumference *2 Kicks the lens to inner circumference at the same time	• Sled circuit check • Tracking circuit check • Mechanism operation check • PU check
		RWD button	CD TEST	• Moves PU to outer circumference *2 Kicks the lens to outer circumference at the same time	
6	Spindle mode	TAPE REC button	All indicators turn on	• Pressing the button once rotates the spindle motor in the normal direction (rough speed). Pressing the button again rotates it in the reverse direction. Pressing it again stops the motor	• Spindle circuit check • Spindle motor check
7	RF AGC mode	TUNER button	AGC ON/OFF	• Repeats ON/OFF every time the TUNER button is pressed	• PU good or defective check • RF AMP circuit check

*1 ...... When the focus search keeps running for 10 minutes or longer continuously, the driver IC heats up, and the protective circuit works so that the machine may stops operating.
In this case, turn off the main power, wait for a while and restart the machine.

*2 ...... Do not keep pressing the FF or RWD button while the pickup is located at the innermost or outermost circumference because the gear can be damaged as the sled motor keeps rotating.

4. Automatic Adjustment Result Display

The automatic adjustment values of the focus and the tracking can be displayed.

4-1. Automatic Adjustment Result Display of Focus Offset Cancel/Gain

1) Enter the start mode (all indicators turn on).
2) Press the TAPE button to display “F**” and set each of the adjustment item to either ON or OFF. (Refer to the following table.)
3) Press the PLAY button to play back the CD.
4) Press the CD button.
5) The automatic adjustment value “F** **” is displayed. (Refer to the following table.)
6) Upon completion of check, press the CD button twice to return to the play mode.

Adjustment item (ON = 1, OFF = 0)			Automatic adjustment value display (Asterisk * means hexadecimal display.)			
F	OFFSET	GAIN	F	OFFSET	—	GAIN
F	0	0	F	Not displayed	Not displayed	Not displayed
F	1	1	F	**	Not displayed	**
F	1	0	F	**	Not displayed	Not displayed
F	0	1	F	Not displayed	Not displayed	**

4-2. Automatic Adjustment Result Display of Tracking Offset Cancel/Balance/Gain

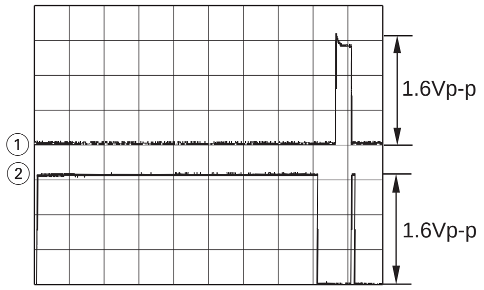
1) Enter the start mode (all indicators turn on).
2) Press the AUX button to display “T***” and set each adjustment item to either ON or OFF. (Refer to the following table.)
3) Press the PLAY button to play back the CD.
4) Press the CD button twice.
5) The automatic adjustment value “F******” is displayed. (Refer to the following table.)
6) Upon completion of check, press the CD button to return to the play mode.

Adjustment item (ON = 1, OFF = 0)				Automatic adjustment value display (Asterisk * means hexadecimal display.)			
T	OFFSET	BALANCE	GAIN	T	OFFSET	BALANCE	GAIN
T	0	0	0	T	Not displayed	Not displayed	Not displayed
T	1	1	1	T	**	**	**
T	1	1	0	T	**	**	Not displayed
T	1	0	1	T	**	Not displayed	**
T	1	0	0	T	**	Not displayed	Not displayed
T	0	1	1	T	Not displayed	**	**
T	0	1	0	T	Not displayed	**	Not displayed
T	0	0	1	T	Not displayed	Not displayed	**

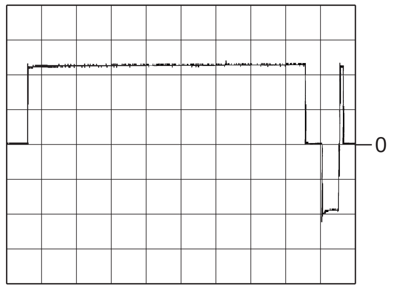
WAVE FORM

① IC201 ㉘ (IN6-R) VOLT/DIV: 500mV
TIME/DIV: 200mS

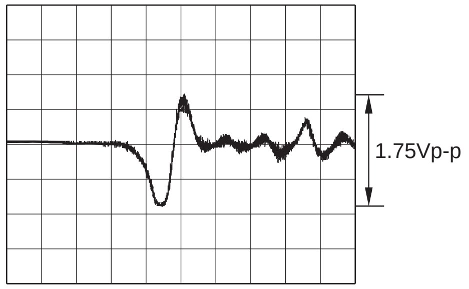
② IC201 ㉙ (IN6-F)



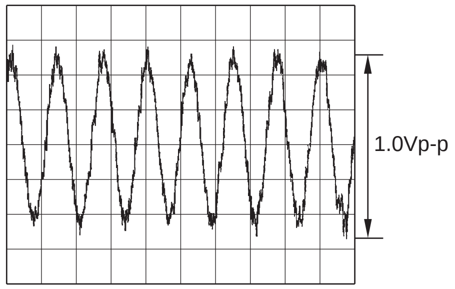
③ Between CN202 ① and ② VOLT/DIV: 1V
(② Pin: 0 Level) TIME/DIV: 200mS



④ IC101 ⑮ (FE) VOLT/DIV: 500mV
TIME/DIV: 2mS

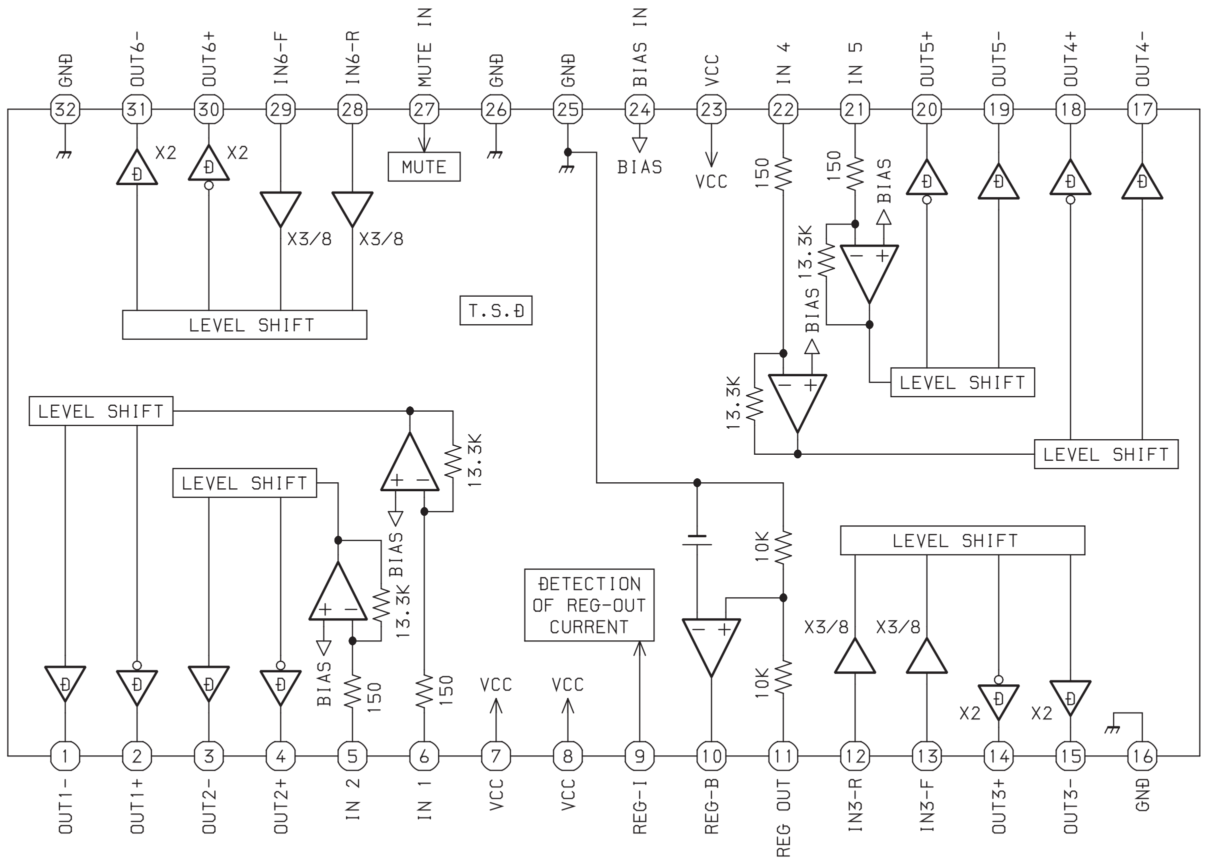


⑤ IC101 ⑯ (TE) VOLT/DIV: 200mV
TIME/DIV: 200μS

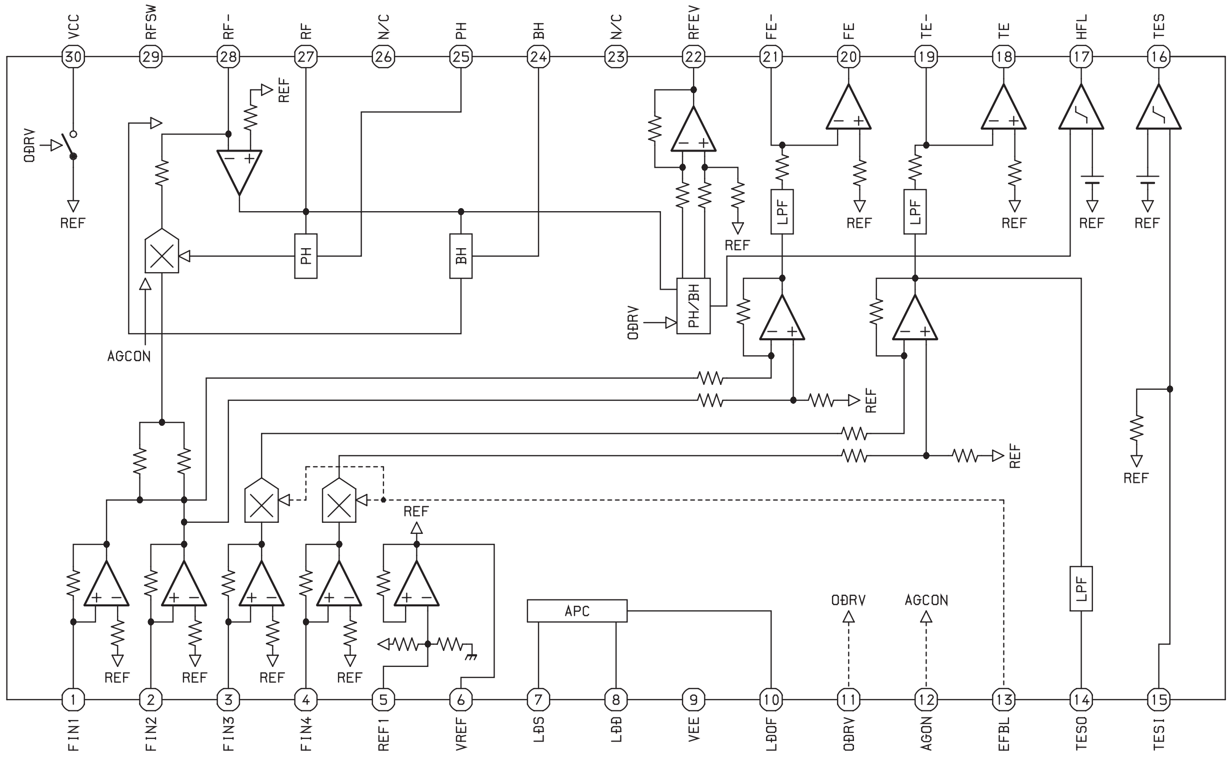


IC BLOCK DIAGRAM

IC, BA5927S


GND ㉜
OUT6- ㉛
OUT6+ ㉚
IN6-F ㉙
IN6-R ㉘
MUTE IN ㉗
GND ㉖
GND ㉕
BIAS IN ㉔
VCC ㉓
IN 4 ㉒
IN 5 ㉑
OUT5+ ⑳
OUT5- ⑲
OUT4+ ⑱
OUT4- ⑰
X2
X2
X3/8
X3/8
MUTE
BIAS
VCC
150
150
BIAS
13.3K
BIAS
LEVEL SHIFT
T.S.D
13.3K
LEVEL SHIFT
LEVEL SHIFT
LEVEL SHIFT
13.3K
LEVEL SHIFT
BIAS
13.3K
10K
LEVEL SHIFT
DETECTION OF REG-OUT CURRENT
X3/8
X3/8
BIAS
150
150
VCC
VCC
10K
X2
X2
OUT1- ①
OUT1+ ②
OUT2- ③
OUT2+ ④
IN 2 ⑤
IN 1 ⑥
VCC ⑦
VCC ⑧
REG-I ⑨
REG-B ⑩
REG OUT ⑪
IN3-R ⑫
IN3-F ⑬
OUT3+ ⑭
OUT3- ⑮
GND ⑯

IC, LA9235M


VCC ㉚
RFSW ㉙
RF- ㉘
RF ㉗
N/C ㉖
PH ㉕
BH ㉔
N/C ㉓
RFEV ㉒
FE- ㉑
FE ⑳
TE- ⑲
TE ⑱
HFL ⑰
TES ⑯
ODRV
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FIN3 ③
FIN4 ④
REF1 ⑤
VREF ⑥
LDS ⑦
LDD ⑧
VEE ⑨
LDDF ⑩
ODRV ⑪
AGCON ⑫
EFBL ⑬
TESO ⑭
TESI ⑮

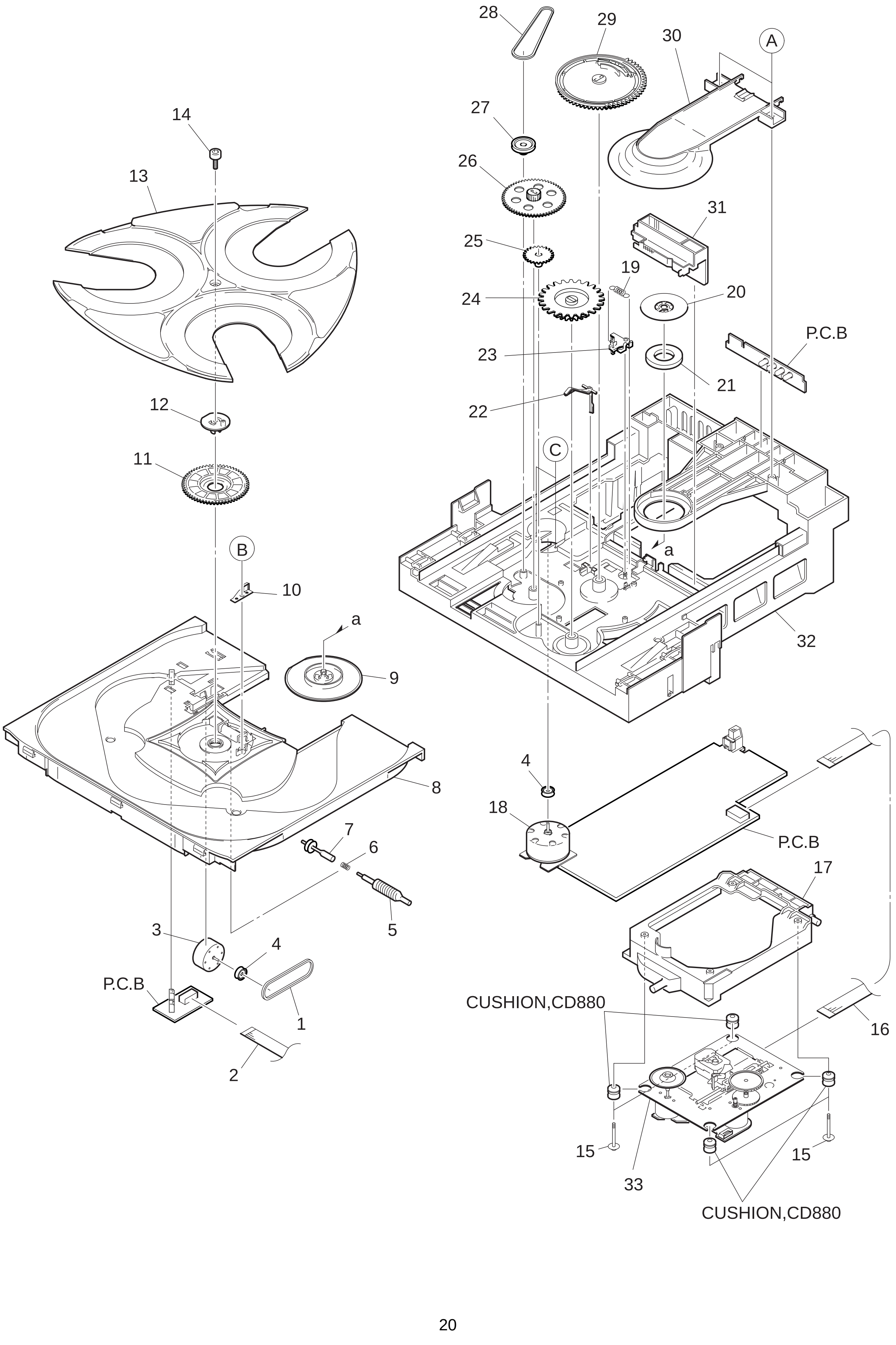
IC DESCRIPTION

IC, LC78641E

Pin No.	Pin Name	I/O	Description
1	PDO1	O	Internal VCO control phase comparator output pin. (Pull down)
2	PDO2	O	Internal VCO control phase comparator output pin. OFF for rough servo, ON for phase servo. (Pull down)
3	VVSS	—	Internal VCO ground pin.
4	PCKIST	—	PDO output current adjustment resistor connection pin.
5	VVDD	—	Internal VCO power supply pin.
6	FR	—	VCO frequency range adjustment resistor connection pin. (Pull up)
7	HFL	I	Mirror detection signal input pin.
8	SLCIST	—	SLCO output current adjustment resistor connection pin.
9	SLCO	O	Control output.
10	EFMIN	I	EFM signal input pin.
11	JITTV	O	Jitter detection monitor pin.
12	JITTC	O	Jitter detection adjustment pin. (Pull down)
13	BH	I	BH signal input pin. (Connected to GND)
14	PH (RFENV)	I	PH signal or RFENV signal input pin.
15	FE	I	FE signal input pin.
16	TE	I	TE signal input pin.
17	VREF	I	VREF input pin.
18	ADAVDD	—	Servo A/D, D/A power supply pin.
19	ADAVSS	—	Servo A/D, D/A ground pin.
20	PHREF	O	PH reference output pin. (Not connected)
21	BHREF	O	BH reference output pin. (Not connected)
22	TBLO	O	Tracking balance output pin.
23	TDO	O	Tracking control output pin.
24	FDO	O	Focus control output pin.
25	SPDO	O	Spindle control output pin.
26	SLDO	O	Thread control output pin.
27	DVREF/FG	I/O	Output driver VREF output pin. FG signal input pin. (Connected to GND)
28	LASER	O	Laser ON/OFF control pin.
29	CONT1	I/O	General-purpose input/output pin 1. (Connected to GND)
30	CONT2	I/O	General-purpose input/output pin 2. (Connected to GND)
31	CONT3	I/O	General-purpose input/output pin 3. (Connected to GND)
32	CONT4	I/O	General-purpose input/output pin 4.
33	CONT5	I/O	General-purpose input/output pin 5. (Not connected)
34	PCK	O	EFM data playback clock monitor pin. Average 4.3218MHz when the phase is locked. (Not connected)
35	C2F	O	C2 flag output pin. (Not connected)
36	VDD	—	Digital power supply pin.
37	DOUT	O	Digital out output pin. (EIAJ format)
38	FSX	O	Output pin for the 7.35kHz synchronization signal divided from the crystal oscillator. (Not connected)
39	EFLG	O	C1, C2 error correction monitor pin. (Not connected)
40	TEST	I	Test input pin. (Connected to GND)
41	EMPH	I/O	Emphasis pin. Which becomes an input pin after reset and can be controlled externally. This becomes an emphasis monitor pin under control by command. (Not connected)
42	MUTEL	O	L channel mute output pin. (Not connected)
43	MUTER	O	R channel mute output pin. (Not connected)
44	LVDD	—	L channel power supply pin.
45	LCHO	O	L channel output pin.
46	LVSS	—	L channel ground pin.
47	RVSS	—	R channel ground pin.
48	RCHO	O	R channel output pin.
49	RVDD	—	R channel power supply pin.
50	XVDD	—	Crystal oscillator power supply pin.
51	XIN	I	Connections for a 16.9344MHz crystal oscillator pin.
52	XOUT	O	
53	XVSS	—	Crystal oscillator ground pin.
54	ASLRCK	I	L/R clock input pin. (Connected to GND)
55	ASDACK	I	Bit clock input pin. (Connected to GND)
56	ASDFIN	I	L/R channel data input pin. (Connected to GND)
57	LRSY	O	L/R clock output pin. (Not connected)
58	DATACK	O	Bit clock output pin. (Not connected)
59	DATA	O	L/R channel data output pin. (Not connected)
60	16M	O	16.9344MHz output pin. (Not connected)
61	SFSY	O	Subcode frame synchronization signal output pin. This signal falls when the subcode is in the standby state. (Not connected)
62	SBSY	O	Subcode clock synchronization signal output pin. (Not connected)
63	PW	O	Subcode P, Q, R, S, T, U and W output pin. (Not connected)
64	SBCK	I	Subcode readout clock input pin. (Connected to GND)
65	CE	I	Chip enable signal input pin.
66	CL	I	Data transfer clock input pin.
67	DI	I	Data input pin.
68	DO	O	Data output pin.
69	INT	O	Interruption signal output pin. (Not connected)
70	WRQ	O	Interruption signal output pin.
71	RES	I	Reset input pin. This pin must be set low briefly after power is first applied.
72	DRF	O	Focus ON detect pin.
73	VDD5V	—	Microprocessor interface power supply.
74	VSS	—	Digital ground pin.
75	CONT6	I/O	General-purpose input/output pin 6.
76	CONT7	I/O	General-purpose input/output pin 7.
77	V/P	O	Rough servo/phase control automatic switching monitor output pin. “H” for rough servo and “L” for phase servo. (Not connected)

Pin No.	Pin Name	I/O	Description
78	FSEQ	O	Synchronization signal detection output pin. Outputs a high level when the synchronization signal detected from the EFM signal and the internally generated synchronization signal agree. (Not connected)
79	DEFECT	I/O	Defect pin. Which becomes an input pin after reset and can be controlled externally. This becomes the defect monitor pin under control by command. (Not connected)
80	EFMO	O	EFM signal output pin. (Not connected)

MECHANICAL EXPLODED VIEW 1/1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18
7
P.C.B
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17
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3
4
P.C.B
1
CUSHION,CD880
16
2
15
15
33
CUSHION,CD880

MECHANICAL PARTS LIST 1/1

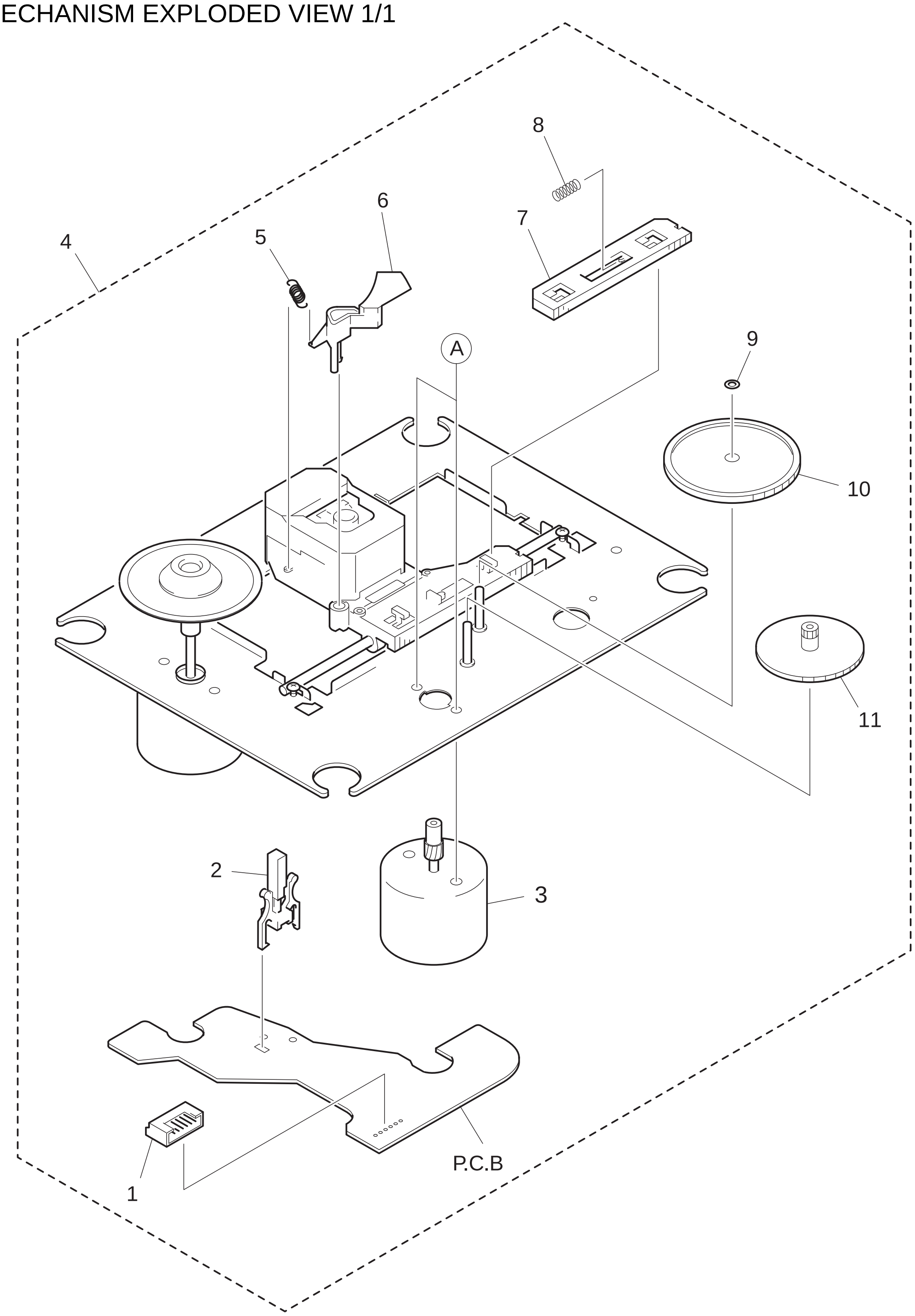
DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	84-ZG1-225-010		BELT,SQ1.0-63.3
2	84-ZG1-673-010		F-CABLE,5P 1.25 210MM BLACK N <EXCEPT ZD8RN1DM,ZD8RNDM>
2	84-ZG1-672-010		F-CABLE,5P 1.25 210MM WHITE N <ZD8RN1DM,ZD8RNDM>
3	87-045-364-010		MOTOR(BCH3B14)
4	84-ZG1-267-010		PULLEY,LOAD MO 8 <EXCEPT YKZD8RDF,ZD8RD>
4	81-ZG1-212-010		PULLY,LOAD MO<YKZD8RDF,ZD8RD>
5	84-ZG1-238-010		GEAR,WORM N
6	84-ZG1-248-010		SPR-C,WORM
7	84-ZG1-239-210		PULLY,WORM N
8	84-ZG1-008-210		TRAY,NO3<ZD8RD>
8	8A-ZG1-001-010		TRAY,NO3 BLU<EXCEPT ZD8RD>
9	8A-ZG1-210-010		HLDR,MAGNET 23<YKZD8RDF>
9	84-ZG1-243-210		HLDR,MAGNET N(J) <YZD8RDJM,ZD8RMDJM,YZD8RMDJM>
9	84-ZG1-289-010		HLDR,MAGNET NAT<ZD8RNDM>
9	81-ZG1-277-310		HLDR,MAGNET N <ZD8RN1DM,ZD8RDM,YZD8RDM,ZD8RD>
10	84-ZG1-259-010		SPR-P,WORM
11	84-ZG1-221-010		GEAR,MAIN TT<YKZD8RDF>
11	84-ZG1-269-010		GEAR,MAIN TT 4<EXCEPT YKZD8RDF>
12	84-ZG1-224-010		LEVER,TT<EXCEPT ZD8RNDM>
12	84-ZG1-288-010		LEVER,TT NAT<ZD8RNDM>
13	8A-ZG1-002-010		TURN TABLE,NO1 BLU<EXCEPT ZD8RD>
13	84-ZG1-005-210		TURNTABLE,NO1(*)<ZD8RD>
14	81-ZG1-239-010		S-SCREW,TT
15	8A-ZG1-201-010		S-SCREW,MECH 880
16	85-NFT-611-110		FF-CABLE 16P-1.0
17	84-ZG1-299-210		HLDR,MECHA NO3<EXCEPT ZD8RNDM>
17	8A-ZG1-203-010		HLDR,MECHA NO3 NAT<ZD8RNDM>
18	87-045-305-010		MOTOR, RF-500TB DC-5V (2MA)
19	84-ZG1-211-010		SPR-E CAM S
20	84-ZG1-285-010		PLATE,MAGNET BLK<ZD8RN1DM>
20	81-ZG1-255-110		PLATE,MAGNET MK2<EXCEPT ZD8RN1DM>
21	83-ZG3-604-010		RING,MAG 2
22	83-ZG3-213-010		LVR,SW
23	84-ZG1-208-210		LEVER,CAM<YKZD8RDF>
23	84-ZG1-266-010		LEVER,CAN 8<EXCEPT YKZD8RDF>
24	84-ZG1-205-210		GEAR,TRAY (*)
25	81-ZG1-291-110		GEAR,TRAY RELAY NO3
26	84-ZG1-206-110		GEAR,RELAY<YKZD8RDF>
26	84-ZG1-274-010		GEAR,RELAY 8<EXCEPT YKZD8RDF>
27	84-ZG1-207-010		PULLEY,RELAY
28	84-ZG1-209-010		BELT,SQ1.8-117.7
29	84-ZG1-203-410		GEAR,MAIN CAM<ZD8RNDM>
29	84-ZG1-215-410		GEAR,MAIN CAM BLU<EXCEPT ZD8RNDM>
30	84-ZG1-011-010		REFLECTOR,CD <EXCEPT ZD8RN1DM,ZD8RNDM>
31	84-ZG1-216-310		SLIDE,MECHA CAM YEL <EXCEPT ZD8RNDM>
31	84-ZG1-204-310		SLIDER,MECHA CAM<ZD8RNDM>
32	84-ZG1-286-010		CHAS,MECHA NAT<ZD8RNDM>
32	84-ZG1-201-410		CHAS,MECHA<EXCEPT ZD8RNDM>
33	M8-ZZK-C90-070		KSM-880CAB
A	87-067-703-010		TAPPING SCREW, BVT2+3-10 <EXCEPT ZD8RN1DM,ZD8RNDM>
B	87-067-981-010		BVT2+3-6 BLK
C	87-251-070-410		U+2.6-3

COLOR NAME TABLE

Basic color symbol	Color	Basic color symbol	Color	Basic color symbol	Color
B	Black	C	Cream	D	Orange
G	Green	H	Gray	L	Blue
LT	Transparent Blue	N	Gold	P	Pink
R	Red	S	Silver	ST	Titan Silver
T	Brown	V	Violet	W	White
WT	Transparent White	Y	Yellow	YT	Transparent Yellow
LM	Metallic Blue	LL	Light Blue	GT	Transparent Green
LD	Dark Blue	DT	Transparent Orange		

CD MECHANISM EXPLODED VIEW 1/1



CD MECHANISM PARTS LIST 1/1

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	91-564-722-110		CONN,PIN 6P	8	92-647-742-010		SPRING COMPRESSION
2	91-572-085-110		LEAF SWITCH	9	93-321-813-110		POLI WASHER
3	9X-264-655-010		SL MOTORR ASSY	10	92-647-407-010		GEAR A
4	M8-ZZK-C90-070		KSM-880CAB	11	92-647-408-020		GEAR B
5	92-647-416-020		SPRING EXTENSION	A	93-713-786-510		SCREW,+P2-3
6	92-647-595-020		SHUTTER B				
7	92-647-732-010		NS SLIDE RACK				

REFERENCE NAME LIST

ELECTRICAL SECTION

DESCRIPTION	REFERENCE NAME
ANT	ANTENNAS
C-	CHIP
C-CAP	CAP, CHIP
C-CAP TN	CAP, CHIP TANTALUM
C-COIL	COIL, CHIP
C-DI	DIODE, CHIP
C-DIODE	DIODE, CHIP
C-FET	FET, CHIP
C-FOTR	FILTER, CHIP
C-JACK	JACK, CHIP
C-LED	LED, CHIP
C-RES	RES, CHIP
C-SFR	SFR, CHIP
C-SLIDE SW	SLIDE SWITCH, CHIP
C-SW	SWITCH, CHIP
C-TR	TRANSISTOR, CHIP
C-VR	VOLUME, CHIP
C-ZENER	ZENER, CHIP
CAP, CER	CAP, CERA-SOL
CAP, E	CAP, ELECT
CAP, M/F	CAP, FILM
CAP, TC	CAP, CERA-SOL
CAP, TC-U	CAP, CERA-SOL SS
CAP, TN	CAP, TANTALUM
CERA FIL	FILTER, CERAMIC
CF	FILTER, CERAMIC
DL	DELAY LINE
E/CAP	CAP, ELECT
FILT	FILTER
FLTR	FILTER
FUSE RES	RES, FUSE
MOT	MOTOR
P-DIODE	PHOTO DIODE
P-SNSR	PHOTO SENSER
P-TR	PHOTO TRANSISTOR
POLY VARI	VARIABLE CAPACITOR
PPCAP	CAP, PP
PT	POWER TRANSFORMER
PTR, RES	PTR, MELF
RC	REMOTE CONTROLLER
RES NF	RES, NON-FLAMMABLE
RESO	RESONATOR
SHLD	SHIELD
SOL	SOLENOID
SPKR	SPEAKER
SW, LVR	SWITCH, LEVER
SW, RTRY	SWITCH, ROTARY
SW, SL	SWITCH, SLIDE
TC CAP	CAP, CERA-SOL
THMS	THERMISTOR
TR	TRANSISTOR
TRIMMER	CAP, TRIMMER
TUN-CAP	VARIABLE CAPACITOR
VIB, CER	RESONATOR, CERAMIC
VIB, XTAL	RESONATOR, CRYSTAL
VR	VOLUME
ZENER	DIODE, ZENER

MECHANICAL SECTION

DESCRIPTION	REFERENCE NAME
ADHESHIVE	SHEET ADHESHIVE
AZ	AZIMUTH
BAR-ANT	BAR-ANTENNA
BAT	BATTERY
BATT	BATTERY
BRG	BEARING
BTN	BUTTON
CAB	CABINET
CASS	CASSETTE
CHAS	CHASSIS
CLR	COLLAR
CONT	CONTROL
CRSR	CURSOR
CU	CUSHION
CUSH	CUSHION
DIR	DIRECTION
DUBB	DUBBING
FL	FRONT LOADING
FLY-WHL	FLYWHEEL
FR	FRONT
FUN	FUNCTION
G-CU	G-CUSHION
HDL	HANDOL
HIMERON	CLOTH
HINGE, BAT	HINGE, BATTERY
HLDR	HOLDER
HT-SINK	HEAT SINK
IB	INSTRUCTION BOOKLET
IDLE	IDLER
IND, L-R	INDICATOR, L-R
KEY, CONT	KEY, CONTROL
KEY, PRGM	KEY, PROGRAM
KNOB, SL	KNOB, SLIDE
LBL	LABEL
LID, BATT	LID, BATTERY
LID, CASS	LID, CASSETTE
LVR	LEVER
P-SP	P-SPRING
PANEL, CONT	PANEL, CONTROL
PANEL, FR	PANEL, FRONT
PRGM	PROGRAM
PULLY, LOAD MO	PULLY, LOAD MOTOR
RBN	RIBBON
S-	SPECIAL
SEG	SEGMENT
SH	SHEET
SHLD-SH	SHIELD-SHEET
SL	SLIDE
SP	SPRING
SP-SCREW	SPECIAL-SCREW
SPACER, BAT	SPACER, BATTERY
SPR	SPRING
SPR-P	P-SPRING
SPR-PC-PUSH	P-SPRING, C-PUSH
T-SP	T-SPRING
TERM	TERMINAL
TRIG	TRIGGER
TUN	TUNING
VOL	VOLUME
W	WASHER
WHL	WHEEL
WORM-WHL	WORM-WHEEL

アイワ株式会社 〒110-8710 東京都台東区池之端1-2-11 ☎03(3827)3111 （代表）
AIWA CO.,LTD. 2–11, IKENOHATA 1–CHOME, TAITO-KU, TOKYO 110-8710, JAPAN TEL:03 (3827) 3111

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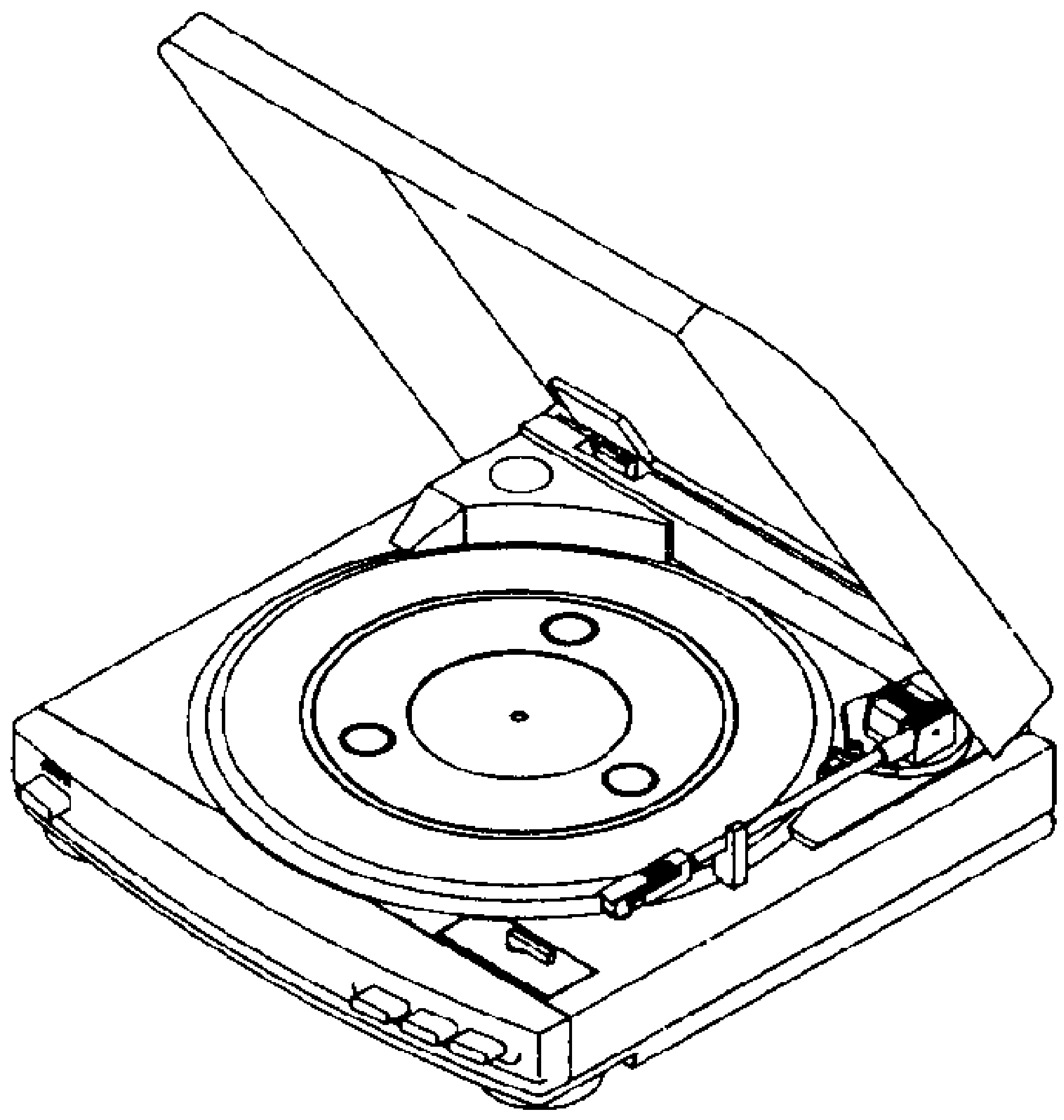
aiwa
SERVICE

PX-E860 U(ST)



SERVICE MANUAL

STEREO TURNTABLE SYSTEM

SPECIFICATIONS

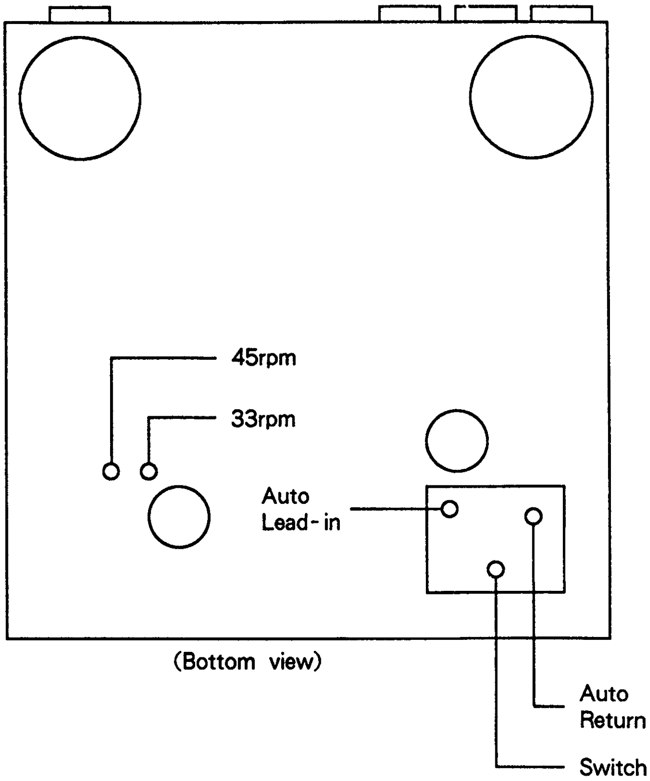
Motor	DC servo motor
Drive system	Belt drive
Speed	$33\frac{1}{3}$ rpm, 45 rpm
Wow & flutter	0.25% (WRMS)
S/N ratio	45 dB (DIN-B)
Cartridge type	VM type
Stylus	AIWA AN-11
Output level	200 mV (2.5 mV/sw. OFF)
Dimensions	Approx. 360 × 97 × 358 mm (w/h/d) ($14\frac{1}{4}$ × $3\frac{7}{8}$ × $14\frac{1}{4}$ in.)
Weight	Approx. 2.4 kg net (5 lbs. 5 oz)
Power requirement	120 V AC, 60 Hz
Power consumption	3 watts

Design and specifications subject to change without notice.

aiwa

S/M Code No. 09-993-322-0R1

ADJUSTMENT



1. Auto Return Adjustment.
   Test Record (HP-4005)

Adjustment	Count
Auto Return	9-12

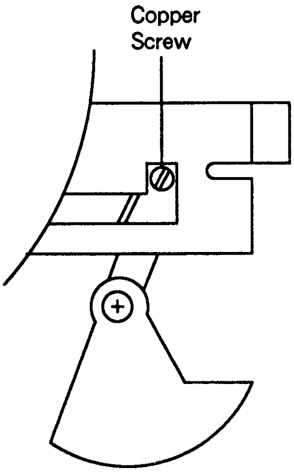
2. Auto Lead-in Adjustment.
   Test Record (HT-5 sidel)

Adjustment	Disk Size	Count
Auto Lead-in	30cm	13-17
	17cm	13-16

3. Phono Motor Speed Adjustment.
   Test Record (HP-4005)

33rpm	3000Hz
45rpm	3000Hz

4. Switch Adjustment.
   (1). Fix tonearm on armrest, remove bottom cover.
   (2). Turn the switch adj. screw so that the plastic tip touches the center position of leaf switch.
   (3). Turn the copper screw so that the gap between two contact point on the leaf switch is from 0.35mm to 0.8mm.



PRACTICAL SERVICE FIGURE

< Turntable Section >
Wow & flutter : Less than 0.23% (WRMS)

< Cartridge Section >
Stylus trip : 0.6mil
Stylus pressure : 3.5g
Output voltage : 127~262mV

ELECTRICAL MAIN PARTS LIST

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

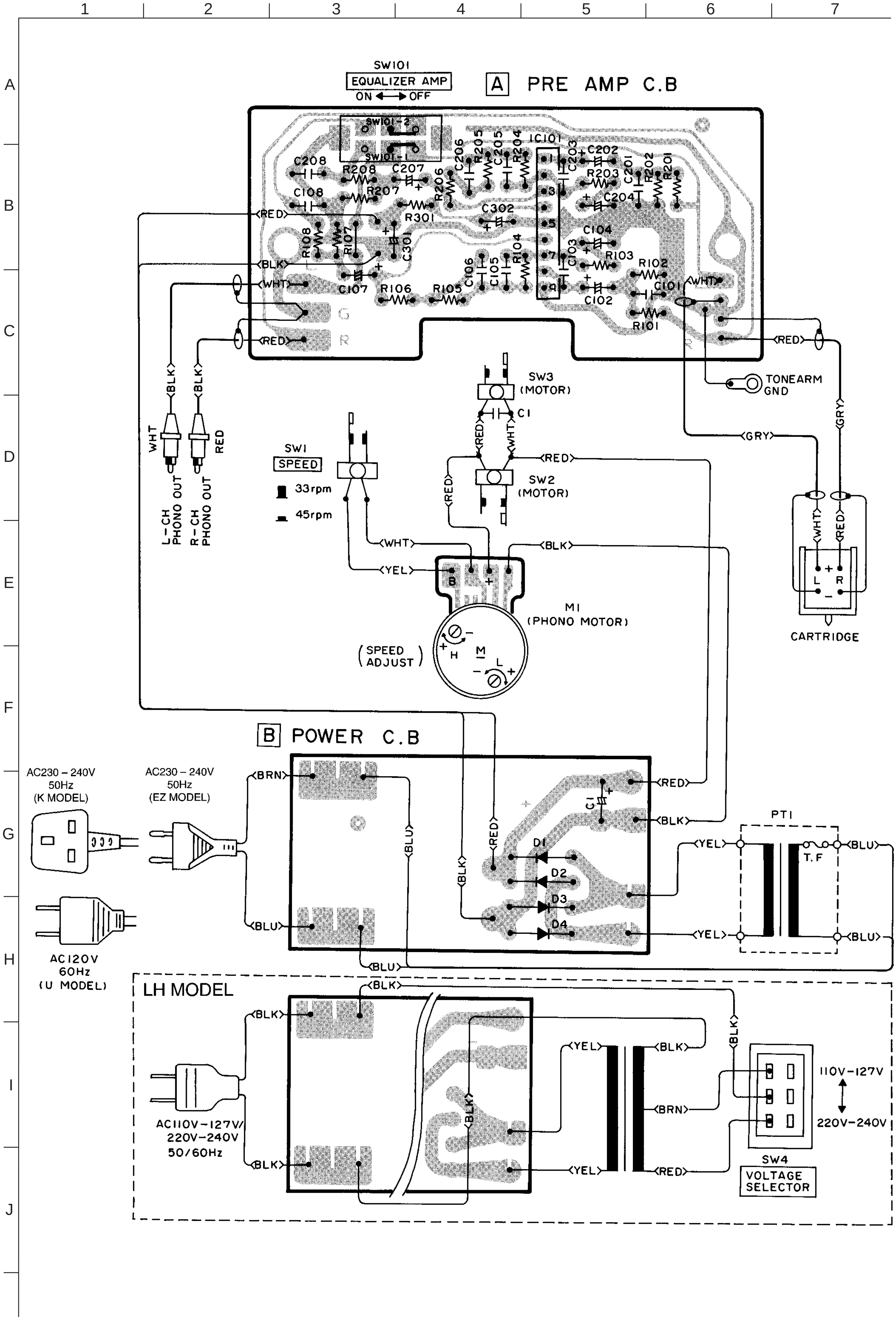
REF. NO	PART NO.	KANRI NO.	DESCRIPTION
IC			
	87-027-683-010		IC,TA7325
DIODE			
	87-001-783-080		DIODE,1N4002
PRE AMP C.B			
	S8-E27-BK0-190		SIGNAL WIRE
C102	87-015-995-810		CAP,E 4.7-50V
C104	87-010-412-010		CAP,E 10-25V
C107	87-015-995-810		CAP,E 4.7-50V
C202	87-015-995-810		CAP,E 4.7-50V
C204	87-010-412-010		CAP,E 10-25V
C207	87-015-995-810		CAP,E 4.7-50V
C301	87-010-564-010		CAP,E 100-16V
C302	87-010-564-010		CAP,E 100-16V
SW101	S3-PXE-900-280		SLIDE SWITCH
POWER C.B			
C1	87-010-237-010		CAP,E 1000UF/16V M

ACCESSORIES LIST

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	S0-0H2-000-160		ADAPTOR 45RPM
2	S8-60E-1C7-500		INSTRUCTION BOOK(PXE860EZ)<EZ>
2	SE-860-KC7-530		INSTRUCTION BOOK(PXE860K)<K>
2	SE-860-UC7-520		INSTRUCTION BOOK(PXE860U)<U>
3	SX-E85-5E6-050		INSTRUCTION BOOK<EZ>

WIRING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SW101
EQUALIZER AMP
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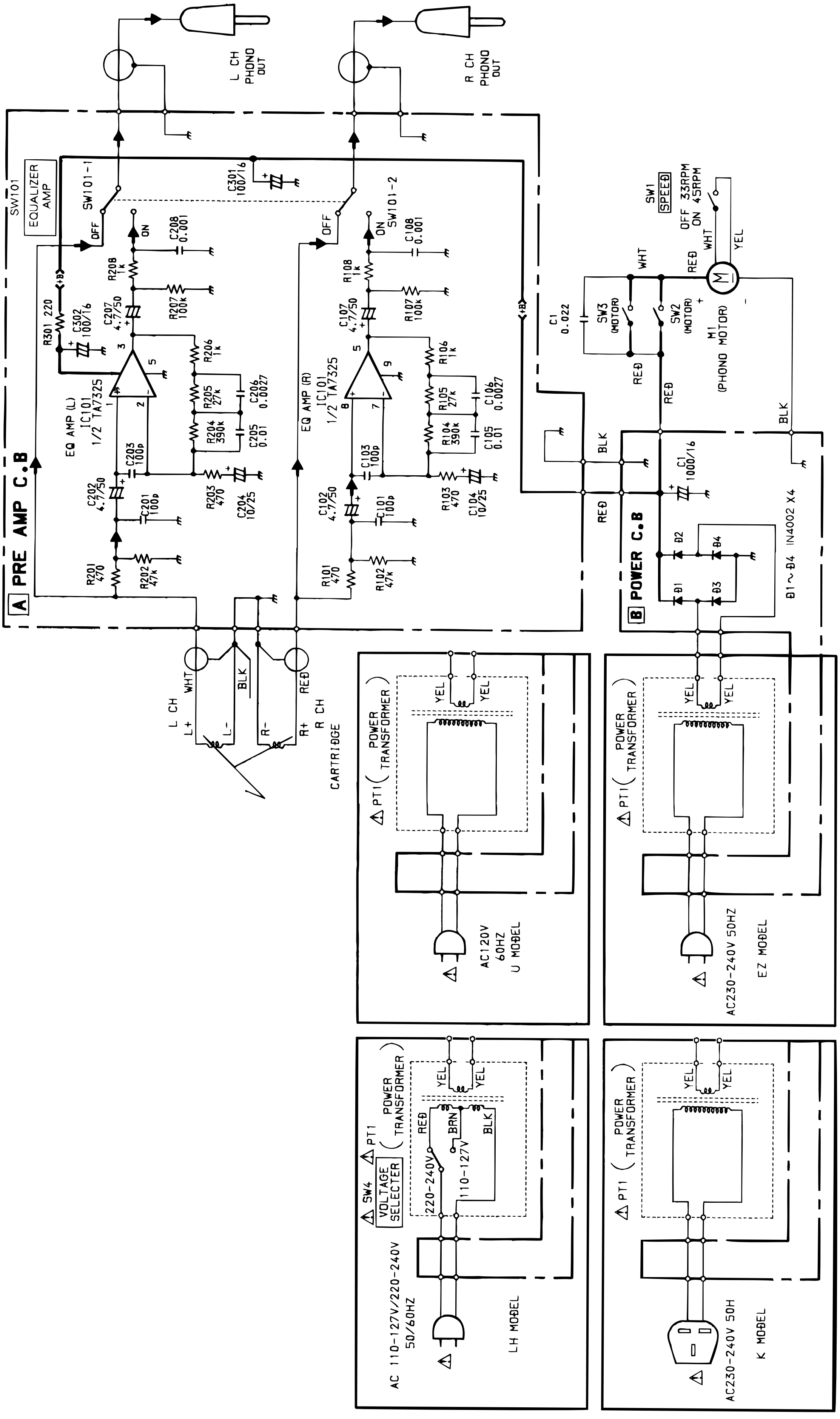
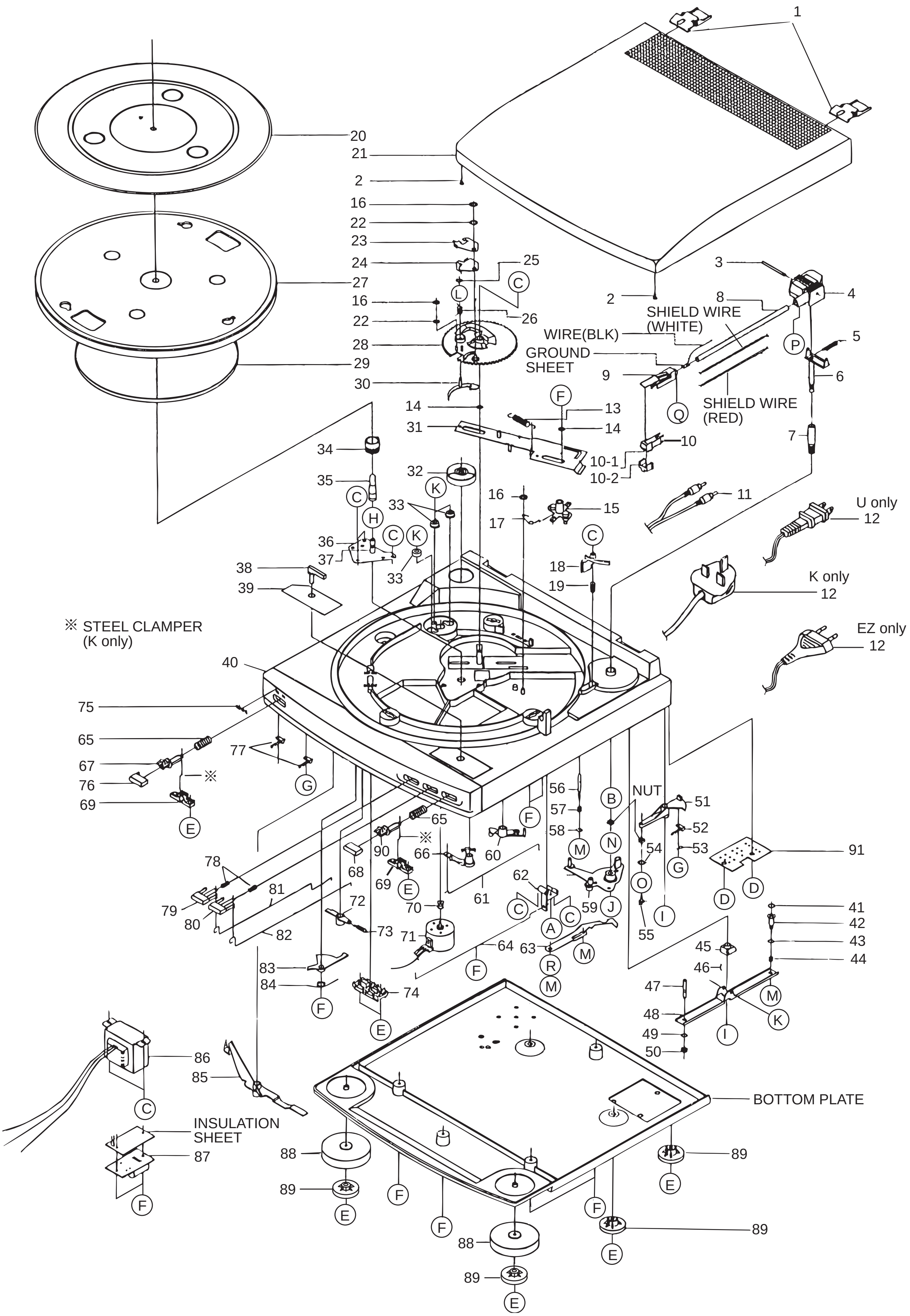
A PRE AMP C.B
SW101-2
SW101-1
IC101
C208
R208
C207
R206
C206
R205
C205
R204
C203
C202
R203
C201
R202
R201
C108
R207
C204
R301
C302
R108
R107
C301
C104
R104
C103
R103
R102
C107
R106
R105
C106
C105
C102
C101
R101
G
R
RED
BLK
WHT
GRY
WHT
RED
L-CH PHONO OUT
R-CH PHONO OUT
TONEARM GND
SW3 (MOTOR)
C1
SW1
SPEED
33rpm
45rpm
SW2 (MOTOR)
YEL
B
M1 (PHONO MOTOR)
(SPEED ADJUST)
H
M
L
CARTRIDGE
B POWER C.B
AC230 – 240V 50Hz (K MODEL)
AC230 – 240V 50Hz (EZ MODEL)
AC120V 60Hz (U MODEL)
BRN
BLU
D1
D2
D3
D4
PT1
T.F
LH MODEL
AC110V-127V/ 220V-240V 50/60Hz
110V-127V
220V-240V
SW4
VOLTAGE SELECTOR

SCHEMATIC DIAGRAM



L CH PHONO OUT
R CH PHONO OUT
SW101 EQUALIZER AMP
SW101-1
SW101-2
OFF
ON
C301 100/16
R301 220
C302 100/16
C208 0.001
C108 0.001
R208 1k
R108 1k
C207 4.7/50
C107 4.7/50
R207 100k
R107 100k
R206 1k
R106 1k
R205 27k
R105 27k
C206 0.0027
C106 0.0027
R204 390k
R104 390k
C205 0.01
C105 0.01
EQ AMP (L) IC101 1/2 TA7325
EQ AMP (R) IC101 1/2 TA7325
C203 100p
C103 100p
C202 4.7/50
C102 4.7/50
C201 100p
C101 100p
R203 470
R103 470
C204 10/25
C104 10/25
R201 470
R101 470
R202 47k
R102 47k
A PRE AMP C.B
B POWER C.B
WHT
BLK
RED
L CH
L+
L-
R-
R+
R CH
CARTRIDGE
SW1 SPEED
OFF 33RPM
ON 45RPM
YEL
M
C1 0.022
SW3 (MOTOR)
SW2 (MOTOR)
M1 (PHONO MOTOR)
C1 1000/16
D1
D2
D3
D4
D1~D4 IN4002 X4
PT1 (POWER TRANSFORMER)
AC120V 60HZ U MODEL
AC230-240V 50HZ EZ MODEL
SW4 VOLTAGE SELECTER
220-240V
110-127V
BRN
AC 110-127V/220-240V 50/60HZ LH MODEL
AC230-240V 50H K MODEL

MECHANICAL EXPLODED VIEW 1/1


1
20
21
2
16
22
23
24
25
C
27
L
16
22
26
28
29
30
3
4
2
8
SHIELD WIRE
(WHITE)
WIRE(BLK)
P
5
GROUND
SHEET
9
6
Q
SHIELD WIRE
(RED)
F
13
14
14
31
7
10
10-1
10-2
34
32
35
K
16
11
C
33
15
17
H
U only
12
C
K
36
37
33
C
18
38
19
39
K only
12
※ STEEL CLAMPER
(K only)
EZ only
12
40
75
65
77
67
※
76
G
69
E
56
NUT
51
57
B
F
65
58
52
※
53
91
N
54
90
66
60
M
G
78
68
62
69
E
O
D
D
81
61
59
J
41
72
70
C
C
I
42
79
80
82
73
71
A
55
43
64
63
M
45
44
R
83
F
46
84
74
M
47
M
F
48
K
E
49
I
50
86
85
BOTTOM PLATE
C
INSULATION
SHEET
87
88
89
89
F
E
E
F
F
89
E
88
89
E

MECHANICAL MAIN PARTS LIST 1/1

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	S0-3B6-000-260		HINGE ASS'Y
2	S4-B60-002-6A0		FOOT FOR DUST COVER(PXE850)
3	S0-SL2-4F1-180		PIN (FOR TONEARM SET)
4	S0-SL2-4F2-310		TONE ARM SET
5	S3-SL2-4F0-830		SPRING
6	S3-SL2-4F0-560		ROTARY SHAFT ASSY
7	S0-SL2-4F1-070		TONE ARM SHAFT SET
8	S0-SL2-4F1-320		TONE ARM TUBE
9	S0-SL3-4F2-320		HEADSHELL
10	S2-E27-BK0-480		CARTRIDGE(W/STYLUS)
10-1	S1-E27-BK0-230		STYLUS
10-2	S0-0B6-011-800		STYLUS COVER
11	S8-E27-BK0-190		SIGNAL WIRE
⚠ 12	S0-930-040-160		AC CORD(E)<EZ>
⚠ 12	SH-MD5-00B-037		AC CORD(K)<K>
⚠ 12	SC-132-0FA-034		AC CORD(U)<U>
13	S3-SL2-4F0-670		SPRING
14	S0-SL2-4F1-17A		COPPER WASHER
15	S0-SL2-4F2-470		SELECT PLATE
16	S0-6F2-000-130		CS WASHER (3M/M)
17	S3-SL2-4F0-690		SPRING
18	S0-SL2-4F2-380		LIFTER
19	S0-3MD-260-590		SPRING
20	S4-PXE-900-720		PLATTER MAT
21	SP-XE8-508-950		DUST COVER
22	S6-SL2-4F0-570		WASHER METAL 3-10-0.5
23	S0-SL2-4F1-300		FRICTION LINK
24	S0-SL2-4F1-310		ACTUATING LINK
25	S0-6B3-000-290		E-RING WASHER 1.5MM
26	S3-SL2-4F0-770		SPRING
27	S0-0F7-002-280		PLATTER TARNTABULE
28	S0-SL2-4F2-480		CAM GEAR
29	S4-PXE-900-760		BELT
30	S3-SL2-4F0-500		CAM GEAR CONTROL ASSY
31	S3-SL2-4F0-490		RETURN LINK ASS'Y
32	S0-0H2-000-160		ADAPTOR 45RPM
33	S4-SL2-4F0-380		RUBBER FOOT FOR MOTOR
34	S0-SL2-4F2-440		SMALL GEAR
35	S2-PXE-900-090		PLATER SHAFT ASS'Y
36	S3-SL2-4F0-510		PLATE SHAFT SET ASY
37	S0-7B6-000-020		STEEL BALL
38	S0-SL2-4F2-360		SELECT RECORD KNOB
39	SP-EX8-508-500		DECORATIVE PLATE
40	S8-55L-HA8-940		BASE
41	S4-SL2-4F0-390		RUBBER CAP
42	S0-SL2-4F1-140		SHAFT
43	S6-SL2-4F0-560		WASHER METAL 5-8-0.5
44	S3-SL2-4F0-780		SPRING
45	S0-SL2-4F2-410		LIFTER SET
46	S3-SL2-4F0-720		SPRING
47	S0-SL2-4F1-120		SHAFT
48	S3-SL2-4F0-520		CUEING LEVER ASSY
49	S0-6B3-000-390		SPRING WASHER METAL 3-5-1
50	S1-A10-000-400		NUT
51	S0-SL2-4F2-390		FIEXING SWITCH SET
52	S3-SL2-4F0-160		SW,MICRO
53	———		CONDENSOR
54	S0-6D2-000-510		SPRING WASHER METAL 3-6-1
55	S0-SL2-4F1-130		SHAFT
56	S0-SL2-4F1-160		SHAFT
57	S3-SL2-4F0-790		SPRING
58	S0-6H2-000-190		WASHER METAL 3-5-1
59	S0-SL2-4F2-420		STATING LEVER
60	S0-SL2-4F2-350		PENDULUM(M)
61	S0-3L1-001-030		SPRING
62	S0-0F7-002-720		OIL SHAFT SET
63	S0-SL2-4F1-260		CONTROL PLATE
64	SP-XE8-501-840		SPR,FOR CUE
65	S0-3B6-000-400		SPRING
66	S0-SL2-4F2-450		SELECTOR
67	S0-0B6-001-390		KNOB SHAFT
68	SP-EX8-509-000		CUE,KNOB(PXE860)
69	S0-0F7-002-590		KNOB SET
70	S0-0L1-001-330		PULLEY
71	S0-1H7-030-380		MOTOR MMI-6T2RWK
72	S0-SL2-4F2-400		PENDULUM(S)
73	S3-SL2-4F0-660		SPRING
74	S0-0B6-001-440		PRESS SET
75	SP-XE8-508-500		DECORATIVE PLATE
76	S8-60L-HA8-970		SPEED KNOB(PXE860)
77	S3-SL2-4F0-110		MICRO SWITCH
78	S3-SL2-4F0-760		SPRING
79	SP-XE8-508-980		START KNOB(PXE860)
80	SP-XE8-508-990		CUT KNOB(PXE860)
81	SP-XE8-501-820		SPR
82	SP-XE8-501-830		SPR
83	S0-SL2-4F2-340		PENDULUM(L)
84	S3-SL2-4F0-680		SPRING
85	S0-SL2-4F2-430		STATING SUPPORT
⚠ 86	S1-PXE-850-068		POWER TRANS(EZ)<EZ>
⚠ 86	SP-XE8-50K-070		POWER TRANS(K)<K>
⚠ 86	SP-XE8-50U-067		POWER TRANS(U)<U>
⚠ 87	———		POWER P.C.B Assy
88	S0-PXE-903-320		FOOT RING
89	S4-SL2-4F0-360		RUBBER FOOT
90	S8-60K-C18-060		CUE KNOB SHAFT BASE(PXE860)
91	———		DUAL PREAMP P.C.B
A	87-741-072-410		SCREW,UT2+2.6-5
B	S6-SL2-4F0-550		WASHER
C	87-761-095-410		SCREW VFT2+3-8
D	87-751-095-410		SCREW VT2+3-8
E	87-761-097-410		SCREW VFT2+3-12
F	87-751-096-410		SCREW VT2+3-10
G	87-751-074-410		SCREW VT2+2.6-8
H	S2-SL2-4F0-930		SCREW
I	87-761-096-410		SCREW VFT2+3-10
J	87-481-097-410		SCREW VWS+3-12
K	87-481-103-410		SCREW VWS+3-24
L	S0-6F2-000-060		WASHER
M	S0-6F2-000-110		E-RING WASHER (3M/M)
N	S0-6F2-000-120		E-RING WASHER (5M/M)
O	S6-SL2-4F0-580		WASHER
P	87-261-097-410		SCREW V+3-12
Q	87-261-074-410		SCREW,V+2.6-8
R	S6-DP3-6F0-640		WASHER\

COLOR NAME TABLE

Basic color symbol	Color	Basic color symbol	Color	Basic color symbol	Color
B	Black	C	Cream	D	Orange
G	Green	H	Gray	L	Blue
N	Gold	P	Pink	R	Red
S	Silver	ST	Titan Silver	T	Brown
V	Violet	W	White	Y	Yellow

▶

サービス技術ニュース	
番号	連絡内容
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Printed in Singapore